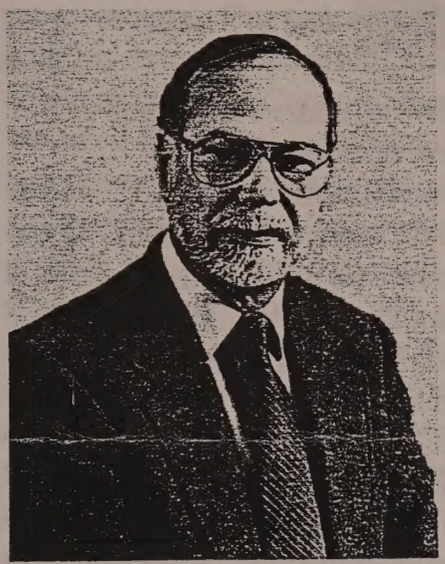
FAR-B NEWSLETTER

Friends of Agricultural Research
Beltsville, Inc.
P.O. Box 1061, Beltsville, MD 20704

January 1997
Alice Murray, Editor

PRESIDENT'S REPORT



FAR-B Upgrades Newsletter

After eleven years of essentially the same format, we have decided to upgrade our quarterly newsletter. The text has been divided into two columns, pictures added and the font size increased for ease of reading. Thanks to **Claudia Volz**, Editor of "Under the Clocktower," the BARC newsletter, and **Alice Murray**, our FAR-B editor, we had a great source of background information for the new newsletter. We would like to hear from you, our readers, about the new format and any comments or suggestions as to what you would like to see in future FAR-B newsletters. You can direct your comments to Alice at 504-7490 or FAX 504-8931.

FAR-B to Fund a New Research and Training Award

The Board of Directors at their January 14th meeting approved a new Awards program for research scientists at the BARC Area to participate in a research or research training program. Awards will be granted for 3 to 6 months, with possible extensions of up to one year. The objectives of the new Award program include the improvement of Agency productivity, collaborative research with peers, training in state-of-the art technology, and development of new skills to strengthen the mission of ARS. The grant will cover up to $15,000 in travel costs, per diem or relocation expenses, associated fees including books, supplies, etc. Salary costs and amounts in excess of the award will be the responsibility of the management unit. Research scientists (category 1 or 4) in Grade 13 or above who have been employed by ARS-BA for at least 3 years are eligible. The deadline for submission of the grant proposal from the BARC scientists will be September 1 to the President of FAR-B through the BARC area office. Scientists interested in applying for the Award are urged to contact the FAR-B office for the required format for submission. Our thanks goes to the Awards Committee which consisted of **Drs. Angus Hanson** and **Essex Finney** from FAR-B and **Walter Rawls** and **Tom Sexton** from BARC.

* * *

IMPORTANT DATE! FAR-B Annual Meeting March 7 at Building 003

The 12th Annual FAR-B Meeting will take place Friday, March 7th in Room 020 of B-003 starting at 2:00 p.m. The featured speaker will be **Dr. Darwin Murrell,** Area Director, who will cover many important events that have occurred at BARC over the last year. Personnel changes, modernization and new scientific thrust areas will be highlighted. Please note this date on your calendar and plan to attend. There will be ample time to visit with former colleagues and meet some of our new FAR-B members. Light refreshments will be served.

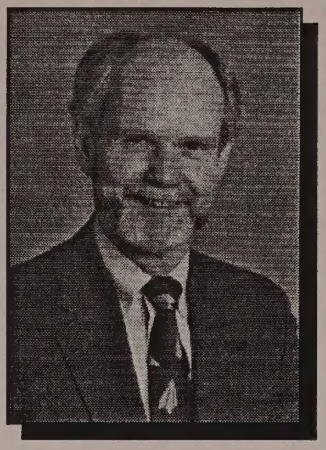
* * *

NAL and FAR-B Cosponsor Ukrainian Reception and Exhibit

The National Agricultural Library (NAL) and FAR-B jointly cosponsored a special reception and exhibit honoring the unique contributions of Ukrainian immigrants to American agriculture. The reception was held at the Ukrainian Embassy on December 11, 1996 in Washington, D. C. Monsanto and John Deere were major contributors to the reception and exhibit. **Susan Fugate**, Head, Special Collections, NAL, was the major organizer for the project. FAR-B is pleased to cooperate with NAL in any future educational programs that highlight ARS activities.

Philip C. Kearney, President

DIRECTOR'S COMMENTS



I want to begin this with some very good news. We now have an Assistant Area Director for the Beltsville Area. This position was filled on January 20 by **Dr. Darrell Cole**, who moved up from the position of Assistant Deputy Administrator on the National Program Staff. **Dr. Cole** is a highly experienced scientist with tremendous experience in managing complex information and data systems and in the analysis and planning of national programs. His demonstrated management abilities and his perspective on national programs and issues will greatly enhance leadership in the Beltsville Area. Among his varied responsibilities will be oversight of the technology transfer and extramural funding programs. In this position, he will take over the responsibilities formerly held by **Dr. Mike Ruff**, who has moved on to be the Deputy Assistant Administrator for the Office of Technology Transfer.

In November, the Area Leadership Team participated in a 2-day retreat at the Patuxent Wildlife Research Center's Visitor Center. We explored in depth the long-term changes in research programs at Beltsville and the Arboretum. In addition to the approximately 30% reduction in scientific and support staff, many of the programs have become

"balkanized," that is without strong linkages to each other. We believe that the assets of the BA are best utilized when we can tackle cross-cutting problems with multidisciplinary teams. These efforts capitalize on our strong human and physical resources. Examples are the growing farming systems projects, both in horticulture and field crops. From a holistic point of view, these systems encompass a great many of the individual basic and applied component research projects in progress here. Our task is to integrate these, and this demands an environment we could characterize as a "Center without Walls." We need flexibility in marshaling people and resources in order to undertake large Area-wide research. It also requires that we provide incentives and rewards to those scientists needed to undertake such team research. The task before us is to map out a strategy that can integrate the many component projects into a directed effort that will yield options for establishing comprehensive and sustainable farming systems for different situations. In most instances, more research is needed to provide the needed options. Another challenge is to undertake the necessary analytical economic research to help us choose the optimal options for a farming strategy -- this will also require more emphasis on developing decision support technologies. Perhaps the biggest challenge of all is the necessity to extend these systems into the "real world," perhaps through cooperating farmers; another approach that has been suggested is to "bring a farmer to Beltsville."

As you can see, the Area Leadership Team has a formidable task in front of it. But, if Beltsville is to continue to lead and to optimally use its resources and assets, this is the direction we must go. You will hear much more from us on this over the coming months.

K. D. Murrell, Area Director,
Beltsville Area

WELCOME TO NEW FAR-B MEMBERS

We are very pleased to welcome the following new members who joined our ranks during the last quarter of 1996, or who changed their membership status during that time. Please be assured that we are very grateful for your support and for your interest in helping FAR-B to assist the Beltsville Agricultural Research Center.

Thomas Dispenza, NARC Federal Credit Union
Sustaining Member
Dr. Mark F. Feldlaufer
Patron
Dr. Lloyd V. Knutson
Patron (formerly Associate Member)
W. C. Dutton, Jr.
Personal Member
Dr. M. M. Omole
Personal Member
Dr. Paul H. Terry
Personal Member
Dr. Beverly Clevidence
Associate Member
Dr. Donald T. Krizek
Associate Member
Dr. Steven Lehotay
Associate Member
Dr. Rex L. Powell
Associate Member

MEMBERSHIP RENEWAL TIME

Once again it is time to renew our membership in FAR-B for the current calendar year. We are very pleased that we have increased our membership significantly during the past year, particularly in the Associate Member category (current BARC employees). We mailed out "Reminder Notices" to all of our members in early January (except to those who had already sent in their 1997 dues payment), but we mention it again in this Newsletter in case you have not yet responded to our reminder. Because some of our newer members joined our ranks rather late in the year (September-December), these individuals should be aware that we have credited them with paid-up membership for all of 1997 in addition to the balance of 1996. We feel this is only fair. But, again, if you have not yet renewed your membership, we urge you to do so as soon as possible so that we can plan for those activities we can fund from this source of support. And we thank you very much for your continued interest and cooperation.

BELTSVILLE SYMPOSIUM XXII

Final planning for the 22nd Beltsville Symposium, "Beneficial Co-Utilization of Agricultural, Municipal, and Industrial By-Products," May 4-8, 1997, is complete and all 36 speakers have been confirmed. The six major topic areas are: Current Status and Future Challenges; Agronomy of Beneficial Co-Utilization; Environmental Considerations; Horticultural Utilization; Co-Utilization Product Uses; and Co-Utilization Products. Case studies also will be featured on such topics as blending of by-products, biodegradation of TNT, reducing environmental impacts of commercial nursery operations, alkaline stabilization, and public/private partnership approaches that encourage and demonstrate co-utilization. The Symposium Banquet, Wed., May 7, will feature **Professor Margaret Maxey**, from the University of Texas, Austin speaking on "Environmental Ethics and Agricultural Policy: Visions and Opportunities." In addition to the symposium presentations, there will be two evening poster sessions and panel/open forum discussions: Products and Markets; and Environmental Aspects.

Patricia D. Millner, Co-Chair
Beltsville Symposium XXII

REGRETS.....

We regret to report the death of **Dr. Helene C. Cecil**, a long time employee with ARS in Beltsville and a FAR-B member for a number of years. **Dr. Cecil** died on October 16 after a heart attack while visiting her son in Denver.

Dr. Cecil retired in 1990 as Research Leader of the Avian Physiology Laboratory at BARC. She began her federal career as a technician in 1953, then graduated from the University of Maryland where she received a doctorate in poultry and animal science. She participated in the authorship of 169 scientific publications and had served on several scientific advisory committees. In 1987 **Dr. Cecil** was the first woman to serve as president of the Poultry Science Association, and later served as president of the Federation of American Societies of Food Animal Sciences. Born in Tuckhannock, PA, she moved to the Washington area to begin her Federal career.

At the USDA she served in 1970 as Chairperson of the Task Force for the Professional Advancement of Women, and from 1971 to 1974 she was the USDA's coordinator for the Federal women's program. Since retiring she had continued to work in her ARS laboratory as a Collaborator.

BELTSVILLE RESEARCH, A CONTINUING STORY...

Oatrim retains its health benefits equally through baking or boiling. That's based on a test of its ability to reduce blood glucose, thereby reducing the risk of middle-age diabetes. Twenty-four men and women had as much improvement in their glucose tolerance after consuming baked or boiled pudding containing Oatrim as they did with instant pudding. The ARS-developed fat replacer contains beta glucans, a fiber component that lowers cholesterol, and is now found in many processed foods. In an earlier long-term study, Oatrim significantly reduced volunteers' cholesterol, blood pressure, glucose and the hormones controlling glucose tolerance. And they lost weight, despite efforts to prevent weight loss. The researchers wanted to know if the booking method altered Oatrim's efficacy. Judging from the glucose responses of these volunteers, it made little difference. Total dietary fiber was slightly higher in uncooked Oatrim, and it produced a bigger response in one of the hormones that control blood glucose. But there was no difference between the cooked puddings. Oatrim can't be fried.

Beltsville Human Nutrition Research Center
Judith Hallfrisch, (301) 504-8396

Two new June-bearing strawberries have been introduced by ARS plant breeders for the Middle Atlantic and adjacent regions. Primetime, a mid-season berry, bears fancy, good quality, large fruit. Latestar, a late-season variety, has large, attractive fruit. Both varieties are recommended for shipping and local markets and resist multiple fungal diseases. they produce well on either light or heavy soils, and in matted rows or in hill culture. Plants are available in season at nurseries.

Fruit Laboratory, Beltsville, MD
Gene Galletta, (301) 504-5652

A new test has been developed to screen geraniums for newly discovered viruses. Geraniums are one of the most rapidly expanding ornamental garden crops in the United States. From 1970 to 1990, total U.S. potted geranium sales increased from $25 to over $130 million, with an additional $30 million for bedding geraniums in 1990. Since geraniums are propagated mainly from cuttings, more than fifteen different viral diseases threaten their production and quality, severely reducing vegetative growth and plant and flower quality. Often mixed viral infections cause severe disease, causing confusion about the exact identity of the culprit. ARS scientists isolated two of the top four viruses from geraniums. After studying their biological, biochemical and serological properties, the scientists called them pelargonium line pattern virus and ringspot virus. Next, they developed a polyclonal antisera to these viruses and showed they can detect the viruses in infected geranium. The new tests will help the U.S. potted plant industry since both exported and imported geraniums have to be virus free.

U.S. National Arboretum, Beltsville, MD.
Ramon L. Jordan, (301) 504-5670

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Beltsville, Inc.
P. O. Box 1061
Beltsville, MD 20704

Francis J. Longen
10114 Towhee Ave.
Adelphi, MD 20783

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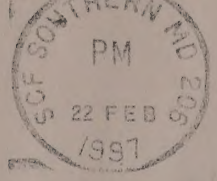


Dr. Essex E. Finney, Jr.
11206 Chantilly Lane
Mitchellville, MD 20721

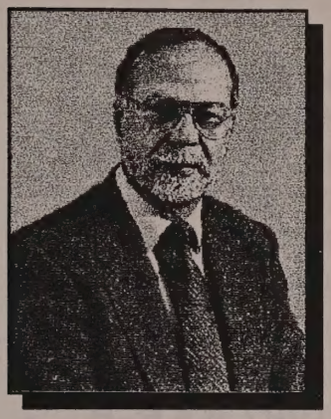
FAR-B NEWSLETTER

Friends of Agricultural Research - Beltsville, Inc.

P.O. Box 1061, Beltsville MD 20704-1061

June 1997 Edition

President's Message



One of the most pleasant duties I have as President of FAR-B is making the annual Distinguished Scientist Award as part of the BARC Symposium. The awardee is selected on the basis of an outstanding research career associated with the theme of the Symposium. On Monday, May 5, 1997, we recognized **Dr. Lawrence J. Sikora** of the Soil Microbial Systems Laboratory, Natural Resources Institute as this year's winner for his outstanding contribution to solving problems of treatment, use and disposal of municipal, animal and industrial residues. A more complete writeup on Larry's award accomplishments and the BARC Symposium are found later in the newsletter.

At our May Board of Directors meeting we approved the formation of a new Focus Group within FAR-B. We want to be more pro-active in getting the BARC message out to the public. The Focus Group would have a major educational role in appearing before civic and governmental groups to discuss BARC needs and accomplishments. **Dr. Essex E. Finney** has agreed to head up our new Focus Group.

In this copy of the Newsletter we are starting a new feature on NEWS OF OUR MEMBERS. Many of our alumni now live outside of the Beltsville community in other parts of the United States. A letter has been addressed to five members asking them basically where they live and what they are doing. We asked them to tell us about their family, hobbies, whether they work or volunteer, where have you been recently and any family news. As space permits, we will feature one or more members in the coming months. In this issue we will feature Drs. Howard Heggestad and Paul Putnam.

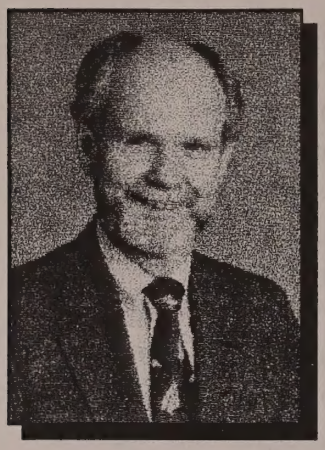
We are working on a new FAR-B color brochure to supplement our existing brochure. The new brochure has color photos of various BARC activities, including a map of the facilities. It provides an Internet address (**http://www.barc.usda.gov/** and click on the Friends of Agricultural Research Beltsville) for the latest information the current BARC Symposium. We hope to have copies available later this year.

Finally at our June meeting we agreed to support an outstanding educational outreach program spear-headed by three BARC scientists. Details of this program are covered elsewhere in the Newsletter. FAR-B is pleased to contribute up to $500 to buy supplies and equipment to assist in a program aimed at stimulating interest in science for fifth grade elementary children. This activity, plus

our plans to work with the Nicholas Orem Middle School in Hyattsville, Maryland fulfills FAR-Bs mission of supporting educational programs.

Director's Message

I write this column after having just returned from this year's USDA Annual Honor Awards program, and I am feeling quite elated at the success ARS enjoyed at this year, especially the high number of awardees from BARC. **Drs. Aref A. Abdul-Baki** (Vegetable Laboratory) and **Rufus Chaney** (Environmental Chemistry Laboratory) received Honor Awards for Environmental Research. **Dr. Ron Fayer** (Immunology and Disease Resistance Laboratory) was similarly honored for his research on animal health. Honored for outstanding leadership in redesigning ARS administrative programs was **Linda A. Mooney**, a former Service Center Administrator at BARC. I'm particularly pleased that my secretary, **Elaine McGuire**, was honored as part of a group award to the ARS National Secretarial Advisory Council. Finally, a team from the ARS Information Staff, led by **Robert Norton**, won an award for producing the outstanding publication "Science in Your Shopping Cart." This wonderful color booklet features many ARS "products," including a number from BARC. If a FAR-B member would like a copy, please call my office, and we will provide one (301-504-6078).



On June 7, we hosted the second BARC Public Field Day (Open House), and it was a great success. Over 2000 people attended, including many children. We were greatly helped this year in getting coverage from Fox Morning News (Channel 5). They did their morning weather show the preceding day at BARC. This gave both the Public Field Day and the BARC program great publicity. I thank **Kim Kaplan** of the ARS Information Staff for the great job she did in getting this free publicity! I also want to acknowledge the great work our BARC team did in organizing and coordinating this great event, especially **Tim Badger** and **John Van de Vaarst**. They were supported by a large number of volunteers, unfortunately too many to list here, but all of us are also in their debt.

A reminder that BARC's Annual Sustainable Agriculture and Integrated Pest Management Field Day will be July 16. This year's event will be more diverse than ever and should have great appeal to farmers, scientists and policy makers. As you can see, summer is a busy but exciting time at BARC!

Dr. Larry Sikora 1997 FAR-B Distinguished Scientist Award

Dr. Lawrence J. Sikora joined the Biological Waste Management and Soil Nitrogen Laboratory of the U.S. Department of Agriculture, Agricultural Research Service in 1975. Larry is recognized as an international expert in land application of organic by-products, transformations and movement of by-product constituents in soil, and biochemistry and microbiology of composting. His accomplishments are numerous and noteworthy:

- demonstrated that disposal of municipal bisolids in trenches did not result in elevated heavy metal levels in crops grown in the site two years after disposal. As a result of this work the USEPA recognized entrenchment as an alternative means of safe disposal of municipal bisolids.

- has made several significant contributions to composting and the safe and effective use of composts in agricultural systems. He developed and used a self-heating laboratory composter to determine optimum conditions for stabilization of organic matter, destruction of pathogens and oxidation of xenobiotics. His work on composing was a key part of the development of the Aerated Static Pile composting technology which has been adopted by hundreds of cities and many industrial firms.

- has developed methods for successfully co-composting of municipal, animal and industrial by-products. His co-utilization approach has the potential to create more valuable products for agricultural and horticultural uses while contributing to the solution of by-product disposal issues.

Dr. Sikora is frequently asked to transfer his research accomplishments to public and private sector groups and institutions. His input has contributed to the development of guidelines for land application of municipal bisolids, helped municipalities improve composting operations and resulted in a greater public understanding of benefits and risks associated with use of municipal, animal and industrial by-products

1997 Symposium

Beneficial Utilization of Agricultural, Municipal and Industrial By-Products

Beltsville Symposium XXII was held May 4-8, 1997. The Symposium was attended by 160 U.S. and international participants representing government, universities, agricultural producers, industry, associations and public interest groups. Information exchange occurred through oral presentations, open panel discussions, poster sessions and informal discussions.

The Symposium emphasized the co-utilization approach to effective, economical and environmentally safe use of selected by-product materials from our cities, farms and industries in agriculture and horticulture. In the past many by-products such as municipal bisolids, municipal solid wastes, animal manures and coal combustion residues were thought of as wastes that simply needed to be discarded. Co-utilization enhances the value and utility of by-products by mixing, blending or co-composting different materials to create a final product with desirable characteristics for a particular agricultural/horticultural application. This approach is currently being used to reclaim degraded land, eliminate pathogens and toxins, reduce bioavailability of toxic trace elements and enhance nutrient availability to crops. The Symposium addressed the current state of knowledge relative to co-utilization of by-products and identified areas where further work is needed to expand beneficial uses of these materials.

The opening session of the Symposium was highlighted by introductory remarks from **Richard Rominger**, Deputy Secretary of Agriculture and **K. Darwin Murrell**, Beltsville Area Director. Deputy Secretary Rominger discussed the need to maintain long-term sustainability of the Nation's food and fiber production system and the positive role that use of by-products can play in this

process. Dr. Murrell encouraged Symposium participants to expand collaboration between the research community and public and private sector partners to develop innovative technologies and practices for recovery and beneficial uses of by-products.

1998 Symposium

Fresh Fruits and Vegetables: Quality and Food Safety

Beltsville Symposium in Agriculture XXIII will be held on May 3-6, 1998. The title is "Fresh Fruits and Vegetables: Quality and Food Safety" and the FAR-B representative is **Dr. Morton Beroza**. The co-organizers of the Symposium are **Dr. Ken Gross** and **Dr. Chien Yi Wang** of the Horticultural Crops Quality Laboratory.

High-quality fresh fruits and vegetables are of paramount importance to consumers, who want fresh produce that is safe (free from contamination by human pathogens), attractive, fragrant, flavorful, of proper texture, residue-free, and highly nutritious. In addition, there is increasing demand by both consumers and the food service industry for fruits and vegetables that are packaged and sold in a pre-cut form ("fresh-cut"). However, little is known about how the quality and nutrient content of these fresh-cut fruits and vegetables change during storage and marketing. Therefore, the time is right to hold a Symposium integrating the areas of production, availability, postharvest biology and technology, and food safety of fresh and fresh-cut fruits and vegetables. The tentative sessions will include the following topics:

What is Quality?: what is quality and how is it measured, quality maintenance, texture, volatiles, color, flavor, sensory analysis

Pre-harvest factors affecting quality: cultural methods, sustainable agriculture, nutrition, disease

Postharvest factors affecting quality: storage conditions, senescence, fruit ripening and softening, physiological disorders, fungal decay, biological control, bacterial soft-rots

Current Issues in Food Safety: human pathogens including bacteria (E. coli, Salmonella, Listeria), parasites (Cryptosporidium, Cyclospora), packaging, storage conditions, beneficial microflora, HACCP for fresh-cut, sterilization techniques, regulatory aspects

Current Issues in Fresh-cut Produce: future demand and consumption for fresh-cut fruits and vegetables, current challenges, handling, storage, temperature, modified atmosphere packaging

Kids and Chemistry

Kids and Chemistry is a hands-on, community-based science outreach program sponsored by the American Chemical Society (ACS). Scientists receive training in how to work with children, how to nurture children's curiosity, and how to do hands-on experiments with children. A team of volunteers, providing one volunteer for every four to six children, visits an elementary school classroom for 75-90 minutes. Each team brings kits containing everything they need to perform a series of hands-on experiments. The team visits the same classroom up to four times during the year.

The team in Prince George's County is based at BARC. This past year 21 BARC employees participated, along with seven scientists from other organizations, in visiting three schools in P.G. County. We hope to recruit more volunteers and visit more schools next year.

Most of our volunteers have found the classroom visits to be fun and rewarding, signing up to do it again each year. We also need volunteers to help with administrative tasks such as communications and kit preparation. If you would like to volunteer, please contact **Jeff Buyer** at 301-504-8436 (e-mail **jbuyer@asrr.arsusda.gov**).

News of Members

Howard Heggestad

(Howard retired in June 1984, he was former Research Leader, Plant Air Pollution Laboratory, Plant Science Division)

It was good to hear from you as it brought back fine memories with you and others in Building 050. We returned to our roots in Stoughton, WI four years ago. This is a town of about 10,000 located about 20 miles south of Madison. It was settled by Norwegians predominately and folks from New England. On the weekend of May 17 we celebrated Norwegian independence from Denmark and the 150th anniversary of the city. At least 50,000 people attended including many from other states as did our son Arnold from Gainesville, FL and Margot from Boulder, CO. We have a son and family still living in Virginia. He works with the Dept. of Interior. We visited in the Washington area a year ago in April. It included a short visit at the Climate Stress Lab, especially with Ed. Lee and Dr Britz. I had just provided Dr. Britz with more that 100 slides with legends and other information of historical background dealing with the air pollution research. From Beltsville Dolores and I went to Raleigh, NC to attend the annual Air Pollution Workshop and to renew many friendships.

We are generally in good health, living in a ranch style house in a nice neighborhood. I have a vegetable and flower garden. My hobby is wood carving which I started 3 years ago. I have realistic carvings, including painting, of 9 birds and 2 gnomes. My next project is a horse starting with a chunk of basswood 10"X10"X4". There will be a lot of wood to remove to find that draft horse inside! I do considerable volunteer work in the church that we were members of as children and at the Senior Center. About 3 years ago the center moved into a fine building along the Yahara River. My specialty is to plan and do some landscaping around the building and along the river about 30 feet away.

Dolores has a sister living in the town and I have one living about an hour's drive away. We have cousins, nieces and nephews in the town and nearby vicinity. I am frequently in contact with former UW classmates who are now retired professors from UW.

Best personal regards,
Howard

Paul A. Putnam

(Dr. Paul A. Putnam is former Director, Beltsville Area, and former Director, Mid-South Area, Stoneville, Mississippi)

Since retiring from ARS in Sept. 1994, my wife and I have been living in Springfield, VT. We have built a small house that is large enough to accomodate visits by children, grandchildren, and friends. The house is built on the site of my great grandfathers' barn thus our family has lived on this land for four generations - over 100 years - after migrating to this area from Massachusetts in the 1750's.

Constructing the house and clearing the land have occupied a large share of our time but other actvities such as being on the Town Selectboard (similar to city council), on church committees, a sectional editor of a professional journal and traveling to visit our family have kept us very busy.

As soon as I become more computer literate, I plan to start work on a couple of books--one on a capsule history of the interaction of animals and man and another on the family history for the last 100 years based on stories told by my father and grandfather and my memories plus research.

Of course I still try to keep up on developments at Beltsville and, from what I hear, the challenges and opportunities are the same. Good science, good management, good politics and good public relations should keep Beltsville in the game. Good Luck!

Sincerely,
Paul A. Putnam

Welcome to New FAR-B Members

We are very pleased to welcome the following new members who joined our ranks since January 1, 1997, or who changed their membership status since that time. Addresses are included in case you wish to add the names to your copy of the FAR-B Directory. We are glad to have the support of these new members.

Dr. Albert A. Piringer
4409 Beechwood Rd.
University Park, MD 20782
- Change in Status to Patron -

Dr. Richard L. Smiley
1444 Primrose Rd., NW
Washington, D.C. 20012
- Patron -

Robert S.T. Johnson
7868 Manet Way
Severn, MD 21144
- Personal Member -

Walter M. Steiner
5403 State Rt. 160
Highland, IL 62249
- Personal Member -

Dr. Phyllis E. Johnson
Rm. 223, Bldg. 003, BARC-West
- Associate Member -

Dr. Bohumil Mach
Bldg. 046, BARC-West
- Associate Member -

Regrets.....

Two well-known and renowned research scientists and administrators in ARS have passed away since our last Newsletter. They are **Carl W. Carlson** and **Dr. Cecil H. Wadleigh**. Both were Charter Members of FAR-B.

Carl W. Carlson died on February 7 at the age of 77 from complications related to pneumonia at a hospital in Charlottesville, VA. Carl was born in Clifton, KS, and graduated from Kansas State University, where he also received a master's degree in soil science. He served in the Army in the South Pacific in World War II. In 1953 he began his career with the USDA in Wyoming and North Dakota as a soil scientist and administrator, retiring in 1980 from the position of Deputy Administrator, Soil and Water Conservation Society and the American Society of Agronomy. He was also a member of the Beltsville Rotary Club. A former resident of Beltsville, he moved to Charlottesville at the time of his retirement. Survivors include his wife, Lenore, two children, and six grandchildren.

Dr. Cecil H. Wadleigh, who retired in 1971 as Soil and Water Conservation Research Division Director, died on February 18 at

Anne Arundel Medical Center following a stroke. He was 89. Dr. Wadleigh, a native of Gilbertville, MA was a graduate of the University of Massachusetts. He received a master's degree in chemistry from Ohio State University and a doctorate in plant physiology from Rutgers University. He was a research assistant at Rutgers and an assistant Professor at the University of Arkansas before joining the USDA as a chemist in California. In 1951 he transferred to the Washington area and worked for the former Bureau of Plant Industry. In 1955 he was named the SWC Division Director in ARS. Dr. Wadleigh was a member of White House advisory committees during the 1960s and 1970s, including the White House panel of the Indus River Basin project in Pakistan, the Watershed Resources Research Committee, and the Committee on Environmental Quality. He was a USDA delegate to the 1963 White House conference on conservation and the 1973 Bilateral Conference on Environmental Protection in Czechoslovakia. In 1967 he received the Agriculture Department's Distinguished Service Award. He was a president of the American Society of Plant Physiologists and a member of the American Society of Agronomy, the American Society of Horticulture, and the Soil Science Society of America. He was named to the National Academy in 1973. Dr. Wadleigh's wife passed away in 1989. Survivors include four children, nine grandchildren and seven great-grandchildren.

1997 Membership Dues

We want to thank our membership for the response to renew their membership for the current year. It is gratifying to know that our commitment to assist the Beltsville Agricultural Research Center is shared by so many past and present employees and by our friends and companies outside of ARS. However, in reviewing our records there are a few members who have not responded to our dues notices. This is no doubt an oversight, so if you wish to remain on our mailing list please remit your dues as soon as possible. We thank you very much.

Request for Historical Information about BARC

Under contract with ARS and as part of a comprehensive survey of buildings and landscape features at BARC, Robinson & Associates, Inc., consultant, is seeking information pertaining to historic events or significant aspects of land use, building construction, or experimental work. Emphasis is on early site history, i.e., roughly pre-1950. Individuals who have this knowledge or are in possession of historic maps, documents, or photographs are encouraged to call **Stephanie Foell** or **Heather Ewing** at Robinson & Associates at 202.234.2333.

Research Highlights:

Hello Dolly!

The world of animal biology was turned upside down by the recent announcement in the journal **Nature** by Wilmut and others that a lamb could be cloned from a somatic cell of an adult ewe. Dr. Wilmut described his research to a full audience in the auditorium of Building 3 on March 12. Dr. Wilmut's approach was to use the technique of nuclear transplantation to transfer a nucleus from cultured mammary gland cell into an unfertilized egg from which the chromosomes had been removed. The following material on cloning is an edited excerpt from testimony of **Caird Rexroad** to Congresswoman Constance Morella's Technology Subcommittee of the House Committee on Science and Technology.

What is an animal clone? A clone is a new animal produced from a single cell of an existing animal. Cloning of farm animals has been around since 1986 when **Steen**

Willadsen first cloned a sheep from the cells of an embryo. Research by **Ian Wilmut** and others indicates that now sheep can be cloned from very specialized cells of the mammary gland of an adult ewe. During the last 10 years, cows and pigs have also been cloned, but so far, only from the unspecialized cells of embryos.

How was Dolly produced? Dolly was produced by growing cells from an adult ewe's mammary gland in the laboratory. Blood serum was removed from the broth that fed the cells, as a result, the cells quit making new DNA. The single cell that was to be Dolly was fused to an unfertilized sheep egg from which the chromosomes had been removed. The unfertilized egg "restarted" the genetic program in the DNA from the mammary gland cell and it grew into a new embryo that was placed in a surrogate mother's uterus (womb). Dolly was the only lamb produced from over 300 attempts to join a mammary cell with an egg.

What is so remarkable about Dolly? Dolly changes the way we think about animal reproduction. Normally only the "germ cells", the sperm and egg, participate in reproduction. The joining of sperm and egg at fertilization result in the formation of an embryo. The embryo sets aside a special set of cells that enter the testis or ovary and make the new germ cells for the next generation. Now we know that with a relatively simple, but poorly understood procedure, other cells can participate in forming embryos. Understanding the procedure that produced Dolly will teach us many things about the genetic program in DNA. The applications of these findings remain to be determined but they will have important impacts on agriculture and medicine.

Will future food and fiber producing animals be clones of superior animals? Maybe. Animals are superior both because of their genes and because of their environment. Clones may help us decide the relative importance of these two factors because they are essentially genetically identical. The best animals today, however, may not be the best animals for tomorrow. An advantage of sexual reproduction compared to cloning is that sexual reproduction maintains a diversity in the DNA that makes genes. Changes such as the type and quality of feed available, global climate changes and emerging diseases all suggest that we should not cause genetic stagnation by settling on clonal reproduction of currently superior animals. In addition genetic progress for important characteristics is still ongoing for all livestock species and breeding goals have not necessarily been met. In dairy cows, milk production has increased as a result of management and genetic selection since 1945 from about 5,000 pounds/cow per year to almost 17,000 pounds per cow per year. There is no indication that optimum production has been achieved.

Will there be a role for clones in the genetic improvement of livestock? Farm animals were domesticated from wild ancestral stocks and the best were kept to produce subsequent generations. In the last 50 years genetic progress has depended on statistical inference about the relationship between the productive capacity of animals and their ability to transmit that capacity to their offspring. Genetic improvement of animals may now be further enhanced by the methods of molecular biology and is characterized by two developments: gene mapping and transgenic animals. ARS conducts genetic fingerprinting techniques that will be used to select superior livestock animals. At the same time we are using these maps to identify the genes that are important for characteristics of animals such as their milk production, fat in the meat, and disease resistance.

What do you do with these genes when you find them and what does that have to do with clones? We will try to define the function of the genes that we find. The techniques used for cloning Dolly may provide a new method for efficient insertion of genes into livestock. Inserting genes into farm animals was first reported in 1986 by a collaboration among researchers at the University of Pennsylvania, University of Washington, and the ARS of the USDA at Beltsville, Maryland. The technique used was to inject DNA containing the gene into an embryo. This research is costly because less than 1% of the embryos produce newborn that contain the new genetic information, but surrogate mothers must be maintained for all offspring. In the laboratory DNA can be inserted into cells in culture and the cells with the new DNA can be selected for study. The cloning of Dolly suggests that we can find adult, or more likely fetal, cells that can be genetically manipulated in the laboratory and used to produce, by cloning, offspring that all contain the new gene. The agricultural use of this technology will be to produce, for example, milk with improved nutritional qualities for consumption by human infants.

Does cloning have a role in germplasm preservation? Possibly. Semen from sheep, cattle and pigs and embryos of sheep and cattle can be preserved by freezing. Not all species of potential agricultural interest have been researched for the freezing capacity. Culture of somatic cells may be of limited utility for germplasm preservation.

Are these the only implications of Dolly for agricultural science? No! Like any discovery the full impact will be known only after much investigation and after many scientist have considered the range of possibilities.

FRIENDS OF AGRICULTURAL
RESEARCH-BELTSVILLE, Inc.
P.O. Box 1061
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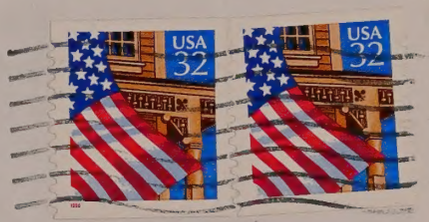


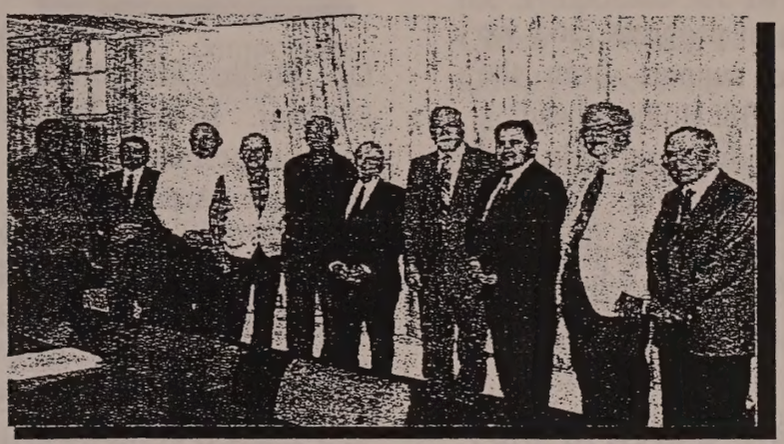
Dr. Essex E. Finney, Jr.
11206 Chantilly Lane
Mitchellville, MD 20721

FAR-B NEWSLETTER

Friends of Agricultural Research - Beltsville, Inc.

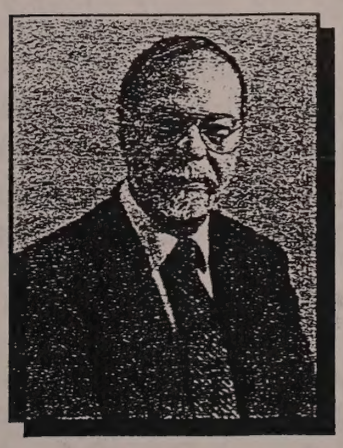
P.O. Box 1061, Beltsville MD 20704-1061

JANUARY 1998 Edition



Members of the Board of Directors and Friends of FAR-B Wish Everyone a Prosperous and Happy New Year. Shown above, from left to right, are John Kucharski, National Visitors Center; Ken Gross, Chairman - BARC Symposium XXIII; Walter Rawls, Executive Secretary; Frank Longen, Vice President; Jack Meiners- Board Member; George Irving, Board Member; Phil Kearney, President FAR-B; Darrel Cole, BARC Area; Bill Bailey, Treasurer; and Mort Beroza, Board Member. Not shown are Board Members Essex E. Finney, Pat Jackson and Bill Hollis. Picture taken at Board Meeting, December 9, 1997.

President's Message



The Officers and Board of Directors of FAR-B want to wish all of our members a Happy and Prosperous New Year. We have had a good year and look forward to an even better one in 1998. Our optimism for 1998 is somewhat tempered by the death of Dr. George Irving, one of the founding and charter members of FAR-B. George died on December 27 at the age of 87. For those of you that live outside of the Washington suburban area and did not see his obituary in the December 30th issue of the Washington Post, we have provided a resume of his outstanding career in ARS. Several times at Board meetings this year, we have discussed just what is the mission of FAR-B. Perhaps Essex Finney best stated our mission when talking to Dr. Phyllis Johnson, the new Area Director at Beltsville, " We are here to help you do your job at BARC". Our mission then is to help ARS scientists and management achieve their goals in research and education. We have achieved that goal in 1997 by sponsoring the Annual BARC Symposium, hosting numerous events, and supporting

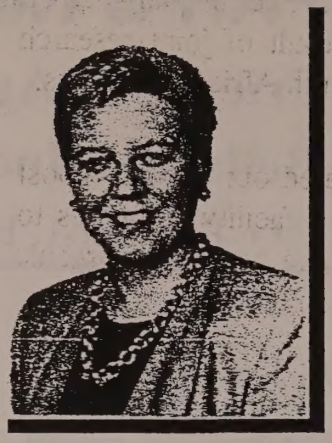
outreach educational programs. In the educational area we funded two summer interns, one at the National Visitors Center , and set aside funding for the Kids in Chemistry Program that goes out into the Princes George's County school system to teach some fun chemistry. This spring we will start our FAR-B Fellowship Program, which will support the travel of select BARC scientists for scientific and educational programs on a national and international basis.

A membership drive is in progress, and we hope to attract more support from the agricultural industry. Dr. Bill Hollis is heading up this program along with Darrel Cole, and we plan to start soliciting our industrial colleagues this year. With these funds we want to expand some of our educational activities with BARC.

We are also proud of one of our own Board Members, who was singled out for special recognition last year. Dr. Mort Beroza was elected to the ARS Hall of Fame. This is a unique honor awarded to a few scientists who have had a distinguished career in ARS.

Last, but not least, we will be holding our annual FAR-B meeting on the first week in April for the first time. This will allow the attendance of some people who take winter vacations to be present, and hopefully the weather will be a little milder. Please mark Tuesday, April 7th on your calendars for the annual meeting. It is a great time to renew old acquaintances and learn about all of the recent changes in personnel at BARC. We have also arranged for a tour of Beltsville for any of our members and their families just prior to our Annual Meeting.

Area Director's Message



The last few months have brought significant changes to Beltsville. On August 1, Dr. Darwin Murrell was detailed to the National Program Staff as the Acting Deputy Administrator and Dr. Phyllis Johnson became Acting Area Director. In early December, these changes became permanent. Dr. Darrell Cole, the Assistant Area Director and Technology Transfer Coordinator, is wearing an extra hat as the Acting Associate Area Director. The Associate's position will be advertised, along with several other SES vacancies in the agency, and we don't expect it to be filled until mid-summer at the earliest.

The Research, Education, and Economics Mission Area of USDA also has a new Under Secretary, Dr. I. Miley Gonzalez, and Deputy Under Secretary, Dr. Eileen Kennedy.

We have had a number of exciting and interesting public activities in the past several months. Our Sustainable Agriculture Field Day in July attracted more than 100 people despite 100 degree+ temperatures. Despite the heat and drought this summer, BARC*s sustainable vegetable production plots and other projects yielded more than 100,000 pounds of fresh vegetables and fruit that were donated to food kitchens and homeless shelters.

The U.S. National Arboretum in Washington, D.C., hosted a special exhibit of South African plants from October through December. A highlight of the exhibit was the naming of a new cultivar of Ornithagalum, an ornamental pot plant, for Mrs. Tipper Gore. Mrs. Gore

attended a reception at the Arboretum to kick off the exhibit and to receive the plant named for her. It was the result of joint research efforts by ARS and South African scientists.

In October, we dedicated our new Compost facility at BARC. This facility allows us to recycle all of the manure and other organic waste generated at BARC to produce our own compost and mulch. More importantly, it allows us to do research on designer* compost formulations, control of odor and runoff from composting operations, and composting conditions to destroy pathogenic bacteria from manure.

In late Fall, we began the long-awaited renovation of Building 004. This building has been completely gutted, and it will be renovated as modern state-of-the-art laboratories, as was done with Building 001. Completion is expected in early 1999.

During the ARS Awards Ceremony in December, Dr. Bob Davis of the Molecular Plant Pathology Lab received the ARS Outstanding Research Scientist Award for pioneering research contributions related to critically important plant diseases caused by novel pathogens. Dr. Laura McConell, Environmental Chemistry Lab, received the Herbert L. Rothbart Outstanding Early Career Scientist Award. She has been a leader in the development and planning of a new research program on atmospheric deposition of pesticides within the Chesapeake Bay watershed. She also received the Presidential Early Career Award for Scientists and Engineers, which was presented at the White House. It is the highest honor bestowed by the US government on scientists and engineers at the outset of their careers. Dr. Al DeMilo, Insect Chemical Ecology Lab, received the ARS Technology Transfer Award for his outstanding transfer of technology related to novel insect repellants.

1998 Symposium

Fresh Fruits and Vegetables: Quality and Food Safety

Beltsville Symposium in Agriculture XXIII will be held on May 3-6, 1998. The title is "Fresh Fruits and Vegetables: Quality and Food Safety" and the FAR-B representative is **Dr. Morton Beroza**. The co-organizers of the Symposium are **Dr. Ken Gross** and **Dr. Chien Yi Wang** of the Horticultural Crops Quality Laboratory.

FAR-B members can attend the non food symposium functions with no charge; however, if you want a proceedings there will be a charge. Enclosed is brochure describing the symposium.

Time to Renew Membership

January marks the beginning of our new membership year. A few of our members have sent in their 1998 dues already and for this we are grateful. We will again be sending out post-card reminders but if you have not already received one, send in your dues with this article as your reminder. It will save us time and postage. Our dues remain unchanged for 1998 - that is, Sustaining members $500.00; Patrons $100.00; Personal Members $20.00; and Associate Members (USDA employees) $10.00. Your past support has enabled us to carry out a number of projects at BARC and we will greatly appreciate your continued cooperation. The past year has enabled us to increase our membership slightly. Listed below are the new members who joined our ranks during 1997 or who changed their membership class.

Patrons: Dr. Mark F. Feldlaufer, Dr. Lloyd V. Knutson, Dr. Albert A. Piringer,

Dr. Richard L. Smiley

Personal Members: W. C. Dutton, Jr., Jane L. Giles, Robert S. T. Johnson, Walter M.

Steiner, Dr. Paul H. Terry

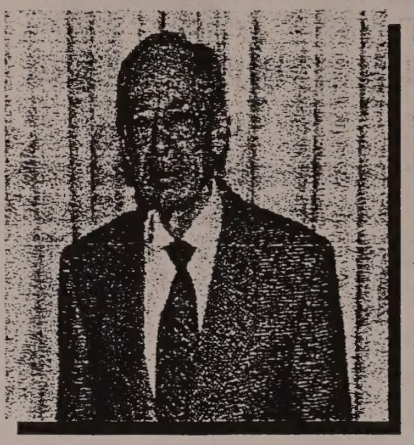
Associate Members: Dr. Beverly Clevidence, Dr. Gary R. Evans, Dr. Barbara P. Glenn, Dr. Mark C. Jenkins, Dr. Phyllis E. Johnson, John F. Kucharski, Dr. Steven Lehotay, Dr. Bohumil Mach, Dr. James E. McMurtrey, Dr. Rex L. Powell

Food, Phytonutrients and Health Forum and Workshops March 9-11, 1998

Health conscience Americans are paying more attention than ever to food quality and healthier lifestyles. This subject will be addressed in an upcoming meeting convened by ARS under the sponsorship of FAR-B. Food, Phytonutrients and Health -- Building Partnerships is the subject of a Forum and Workshops to be convened from March 9-11, 1998. The meeting will bring together a broad range of scientific interests including plant breeders, nutritionists and biochemists from ARS, state laboratories and medical schools. The Forum will be convened in the Patio of the Jamie Whitten Building at USDA Headquarters in Washington, D.C. at 8:00 a.m. on March 9, 1998. This one-half day introduction will be followed by six Workshops that will cover a wide range of subjects related to plant production and processing of products in relation to food intake and associated health benefits. The Forum is open to the general public and the scientific workshops by invitation. You are welcome to attend the Forum to hear the keynote presentations from Health, Plant Science and Industry perspectives on this important topic.

Member inducted into the ARS Hall of Fame

Morton Beroza has an international reputation for discovering ingenious and inventive tools for controlling insect pests safely within their ecological domain. He developed pest-control strategies that use chemicals that do not linger in the environment. His scientific legacy influences insect-pest control management



programs of Federal, state, local, and international agencies. Beroza revolutionized and inspired research worldwide with his discovery of Disparlure, the gypsy moth pheromone, or sex attractant. The lure, in more that 400,000 traps/year, is used to detect the moth, which defoliates about 3.3 million acres of hardwood trees/year.

Recognizing that many insect species survive by multiplying in massive numbers, Beroza was the first to propose using sex pheromones to confuse and disrupt mating. Farmers now use this confusion tactic to protect apples, cotton, corn, and other corps from some insect pests. He also developed trimedlure (TML) for detecting the destructive Mediterranean fruit fly. Today, TML is used to bait detection traps wherever fruit is grown. In the U.S., such traps help protect over $4 billion of agricultural commodities. Beroza also discovered or help develop attractants to trap melon flies, Japanese beetles, house flies, fire ants, corn earworms, and many other pests.

In his 315 scientific papers on pesticides and pest control chemicals, Beroza described analytical techniques and apparatus now used by chemists around the world. He received three USDA Superior Service Awards and seven USDA Certificates of Merit. Among his many other professional honors were the American Chemical Society (ACS) Nation Award in Chromatography and Electrophoresis, the Harvey W. Wiley Award in Analytical Chemistry, and the ACS International Award for Research in Pesticide Chemistry.

FAR-B Annual Meeting

Annual Meeting - Please Mark April 7th on Your Calendar. **The 1998 Annual FAR-B meeting is scheduled for Tuesday April 7 at 2:00 PM in Room 20 in Building 003 (the Clock Tower Building).** Our 12th annual meeting has been moved from March to April with the hope the weather will be better and some of our members will be back from winter vacations by then. The featured speaker will be Dr. Phyllis Johnson, newly appointed Area Director at Beltsville. She will discuss several major issues, including renovation, important personnel changes and new programs. We will also hear from some BARC scientists who have benefitted from FAR-B programs. Please join us for refreshments and opportunity to met new personnel at BARC and renew old acquaintances at our annual meeting.

For those of you that would be interested in a tour of BARC prior to the Annual Meeting at 2:00 PM, we have arranged with our National Visitors Center for a two hour, guided tour of Beltsville. A bus will pick you up from the front steps of the Clock Tower building at 10:30 PM and return you to the same building at about 12:30 PM. We have arranged for a lunch for you in Room 20. This is a good time to get reacquainted, or see for the first time, some outstanding research programs. You will see research underway on the genetic engineering of animals, food safety and phytonutrients and human nutrition. If you are interested in taking the tour, please contact John Kucharski at the National Visitors Center at 301-504-9403..

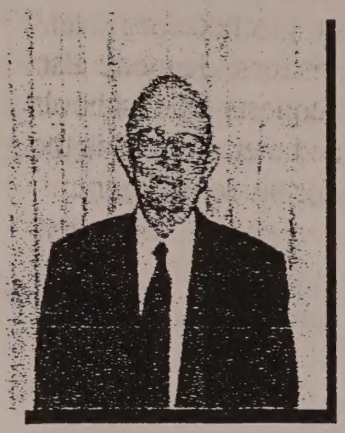
FAR-B Fellowship Award

This is the first announcement for applications for the FAR-B sponsored NEW RESEARCH and TRAINING AWARD (FAR-B Fellowship Award).The objective of this AWARD is to encourage research scientists at BARC to participate in a research or research training program. Highlights of the program are as follows: will cover up to $15,000 for travel, per diem or relocation expenses, and associated fees for books, supplies, etc. awards will granted for 3 - 6 months, with possible extensions of up to one year. applicant must be a research scientist (Category 1 or 4) at the 13 grade level or above who have been employed at BARC for at least 3 years. The application process follows the same format as the Beltsville Area Fellowship Award. Applicants need to refer to the August 4,1997 memo from Darrel Cole addressed to BA Employees for the Application guidelines. The deadline for consideration for the FAR-B Fellowship is March 11, 1998. Applications should be mailed to FAR-B Fellowship, Hydrology Lab. Room 105, Bldg 007, BARC-West, Belstville, MD 20705.We are asking our Associate members at BARC to call this announcement to the attention of their colleagues in BARC labs. We will put out a general e-mail announcement toward the end of January or early in February.

FAR-B To Provide Congressional Testimony

Last year we discussed the feasibility of FAR-B becoming more active in our educational programs. From these discussions evolved the concept of developing a Focus Group to provide information on the importance of agriculture research to the American people. This year we plan to prepare a testimony for the Senate and House Agriculture Committees to provide appropriate information on the need to maintain and increase funding for agricultural research. Dr. Essex Finney, Chairman of our Focus Committee and Bill Hollis, have agreed to prepare the testimony. The hearings are tentatively slated for February 26 for the House and February 24 for the Senate.

GEORGE W. IRVING, JR



Born November 20, 1910 in Caribou, Maine, Dr. Irving attended public schools in Seattle, Washington and in the District of Columbia. He obtained a B.S. in chemistry and M.A. and Ph.D. degrees in biochemistry from The George Washington University, Washington, D.C. He worked in the National Bureau of Standards and later in the U.S. Department of Agriculture (USDA) as a full-time laboratory assistant from 1927 to 1935, while he was completing his undergraduate studies in evening classes at the University. After brief duty as Junior Chemist in USDA's Bureau of Entomology and Plant Quarantine, he resigned to serve as Research Fellow in Biochemistry at the George Washington University School of Medicine, 1936-38, and at the Cornell University College of Medicine, 1938-39, teaching and conducting research for his doctorate on proteins and pituitary hormones. He was Assistant in Chemistry, Rockefeller Institute for Medical Research (now Rockefeller University), New York City, 1939-42, where his research involved proteolytic enzymes and cancer. Dr. Irving returned to the USDA in 1942 to conduct and direct protein research at the Southern Regional Research laboratory, New Orleans, LA. In 1944 he established a Laboratory to study the biochemistry of plant disease resistance and the mechanism of action of plant growth regulating chemicals at the Agricultural Research Center, USDA, Beltsville, MD. He continued there until 1947 when he was chosen to be Assistant Chief of the Bureau of Agricultural and Industrial Chemistry, USDA, in Washington, D.C. When research in the Department was reorganized in 1953 he was appointed Chief of the newly formed Biological Sciences Branch of the Agricultural Marketing Service. He was named Deputy Administrator for Research of the Agricultural Research Service (ARS) in 1954, for Utilization Research and Development in 1957, and for Nutrition, Consumer, and Industrial Use Research in 1963. He became Associate Administrator of ARS in 1964 and served until he was promoted to Administrator in March 1965, where he directed the research and regulatory programs of USDA, involving some 15,000 professional and supporting personnel in several hundred locations throughout the world. He retired from Federal service July 1971 to become Research Associate in the Federation of American Societies for Experimental Biology, Bethesda, MD, where he organized and served as Chairman and Chief of Staff of an expert group of scientists who evaluated the safety of some five hundred food additives, under contract with the Food and Drug Administration, Department of Health and Human Services. In May 1982 he became Executive Vice President of the Agricultural Research Institute, Bethesda, MD from which he retired in May 1984. He served as Executive Vice President of the International Life Sciences Institute from 1986 to 1989. He was Professorial Lecturer in Biochemistry, George Washington University Medical School, 1947-53 and Lecturer on Antibiotics, USDA Graduate School, 1946-52. He served as Public Trustee and Chairman of the Board, The Nutrition Foundation, 1982-85, and as consultant to the National Graduate University, and to Leadership Systems, Inc. For a number of years he was a Member of the Agricultural Board of the National Research Council, National Academy of Sciences. He is author or co-author of more than 50 scientific articles and books on pituitary hormones, amino acid and protein chemistry and metabolism, plant and animal proteolytic enzymes, antibiotics, plant growth regulators, and food additives; some 150 articles on various aspects of research direction and administration; has made more

than 100 appearances to present testimony before Congressional Committees. He is survived by his wife of 60 years, Francis Catherine Connell Irving of Bethesda; two children George W. Irving III of San Antonio and Mary Constance Irving Fitzpatrick of Cape Coral, Fl and three grandchildren. George was a founder and charter member of FAR-B when it began in 1986. He served as a Board member for 12 years and was active on a number of Committees. We will miss George's good sense of humor and sage advise.

ARS National Visitor Center Highlights of 1997

The NVC Staff:

John Kucharski, former head of the Photo Planning Unit, Information Staff (IS), Headquarters became the new Head of ARS National Visitor Center this year. John began is USDA career in 1973 with APHIS. Prior to that time he worked for FSIS (previously FSQS) and then went to work for APHIS again. In 1988 he joined the ARS Information Staff and shortly became the head of the Photo Planning Unit which also is responsible for all photographs in the *Agricultural Research Magazine.*

Jay Green has been at the NVC since 1995 when USDA's Human Nutrition Information Service was dissolved by Congress. Jay is a Registered Dietitian with a Master of Science degree in Nutrition Education and Mass Media Communications from Columbia University. He has been in the nutrition field for more than twenty years as Chief Clinical hospital dietitian, Director of Nutrition Education for General Nutrition Centers (GNC), pharmaceutical sales representative, to USDA's label program, and marketing the Food Guide Pyramid.

Jeanette Baylor, has been with the NVC staff since 1982. Her years of experience with visitors and ARS has given her a wide background with resources and information. Jeanette has been scheduling and coordinating tours for visitors. Jeanette also coordinates incoming requests from schools for science fair judges and mentors and is the contact for resources for student programs. This year Jeanette began giving ARS tours which has included the general public, schools, and senior and touring groups.

A new look for NVC:

During the past year new carpeting was installed, new displays were brought in and added. Half of the exhibits have been updated. Some of the furniture has been replaced. Background music has been added for visitor enjoyment. Work was also begun on the outside area of the NVC as well. This included repainting and rehabilitating of the picnic tables and benches which are used at least nine months out of the year on the patio area. The nature trail around the pond has been reopened and mulched. A name has been designated to the entrance road off of Powder Mill Road to the NVC has been named Log Lodge Road.

The Log Lodge is your Lodge. We can accommodate up to 120 people for all BARC, FAR-B, ARS, REE, and/or USDA official meetings, symposiums, and other programs and functions.

We want to thank the Friends of Agricultural Research - Beltsville, Inc. for their financial support in 1997 for funding our summer intern, Tamika Clark. Tamika is a native of Upper Marlboro and is attending college in South Carolina. She assisted in the reception area duties and gave tours for younger children and unexpected drop in visitors.

If there is any way that the National Visitor Center staff can be of service to FAR-B please give us a call

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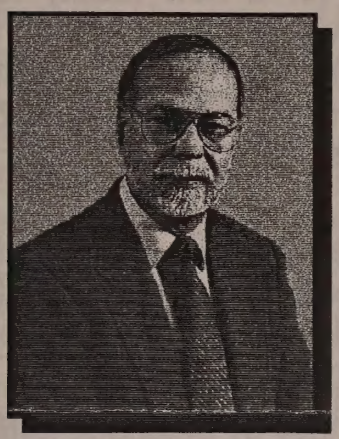
FAR-B NEWSLETTER

Friends of Agricultural Research - Beltsville, Inc.

P.O. Box 1061, Beltsville MD 20704-1061

JUNE 1998 Edition

President's Message



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Ralph Bram

Ralph was born in Washington, D.C. and received the Ph.D. degree in Entomology from the University of Maryland. He has been an Assistant Professor at Purdue University, Research Entomologist at the Smithsonian Institution, Research Scientist in the Animal Parasitology Institute here at Beltsville, Research Entomologist at the ARS Medical and Veterinary Entomology Research Laboratory in Gainesville, Florida, and retired with 30 years of Federal service after spending 13 years as ARS National Program Leader for Medical and Veterinary Entomology. During his career, he has received the Secretary of Agriculture's Superior Service Award on two occasions, the Food and Agriculture Organization's Screwworm Medal, and other awards. In retirement, Ralph is a Collaborator with the ARS Midwest Livestock Insects Laboratory, Associate Editor of the Journal of Medical Entomology, and a freelance science writer.

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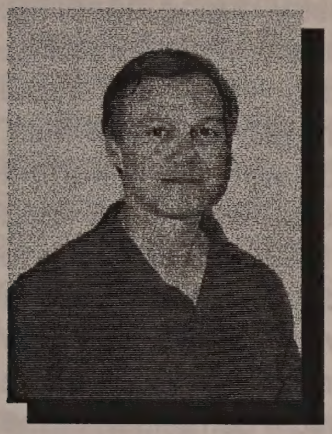

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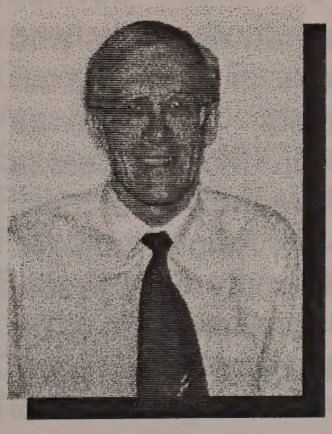


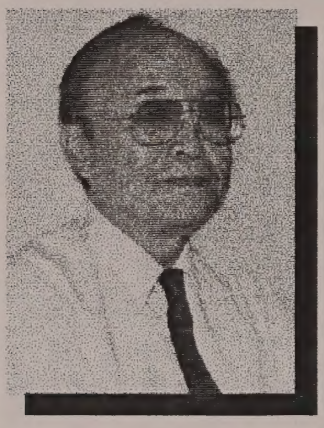
FAR-B congratulates Drs. Sikora and Anderson and wishes them success during the period of their fellowships. All BARC scientists are encouraged to take advantage of the opportunity to submit George W. Irving Fellowship Award proposals next year. These research and training awards are an ideal way to stay on the razors edge of science.

1998 FAR-B Distinguished Scientist Award

Dr. Miklos Faust and Dr. Alley Watada will be co-recipients of the 1998 FAR-B Distinguished Scientist Award which will be presented on May 3rd during Beltsville Symposium XXIII on "Fresh Fruits and Vegetables: Quality and Food Safety." This award has been given by the Friends of Agricultural Research - Beltsville (FAR-B) annually to recognize excellence in research. The first award was given in 1987 to Dr. Mary Shaw Shorb, who did pioneering research on Vitamin B deficiency at Beltsville almost 50 years ago. Last year, the award was presented to Dr. Larry Sikora for his major contributions to research on composting and the beneficial use of organic by-products, a theme of the 1997 symposium. The 1998 winners have made widely recognized contributions to horticultural science.

Miklos Faust, a native of Hungary, began his career at Beltsville in 1966. His entire career is centered around fruit research with an emphasis upon elucidating the nutritional requirements of fruit trees. He determined the biochemistry of fruit color, the role of calcium on fruit quality and storage, the mechanism of dwarfing of fruit trees, the mechanism of russeting, and several other important topics. He has published over 200 scientific articles, reviews and books. His book on physiology of temperature zone fruit trees is used as a textbook throughout the world. He received the Gourley Award of the American Society for Horticultural Science (ASHS) twice for excellence in fruit research and in 1975 was elected a Fellow of ASHS. In 1996, the President of the Hungarian Republic presented Dr. Faust the Commandant-Cross of the Hungarian Republic's Order of Merit, the highest honor of the country.

Dr. Alley E. Watada is being recognized for his many significant contributions in postharvest biology and improved methods for protecting the quality of fresh fruits and vegetables. During his career of almost 30 years at Beltsville, he has served as a Research Food Technologist, Investigations Leader, and Research Leader of the Horticultural Crops Quality Laboratory. His research on sensitivity of fruits and vegetables to chilling, modified atmosphere packaging and storage, and analytical and nondestructive measurements of quality has had a major impact upon reducing the $5 to 7 billion dollar loss that occurs annually in the fresh produce industry during handling, storage, transportation and marketing. The fresh-cut fruits and vegetable industry is a rapidly growing business, and quality and food safety are important issues to producers, marketers and consumers. When the industry began to expand about a decade ago, Dr. Watada initiated research with fresh-cut produce and provided technical guidance as a member of the technical committee of the International Fresh-cut Produce Association. His research in this area resulted in over 50 publications in this critical area over the past 5 years. Dr. Watada has served as Chairman of the Gordon Research Conference, Associate Editor of the Journal of ASHS, was elected a Fellow of ASHS, and awarded the Japan Society for the Promotion of Science Fellowship.



New Members

We welcome several new members who have joined our ranks in 1998. Your support is appreciated. They are as folloiws: Patron - Dr. Morton Beroza (upgrade from Personal Member); Personal Members - Dr. Ralph Bram, Dr. Albert B. DeMilo, Dorothy S. Jessop; Associate Members - Dr. Darrell Cole, Dr. Lawrence J. Sikora, Lora Tanner, and Nancy Thrush.

We still have not received dues for membership renewals from a number of our members. If you have overlooked or misplaced our earlier reminder, please

submit your dues payments as soon a possible. Thanks for your continued support and cooperation.

FAR-B Member Honored

Dr. Morton Beroza, who retired in 1974 as chief of the Organic Chemicals Synthesis Laboratory at BARC, has been selected to present this years Sterling B. Hendricks Memorial Lecture which will be delivered at the American Chemical Society Fall meeting in Boston August 23-27. His presentation is titled "Research in the quest for Safer Insect Pest Management".

Passing of a Long Time FAR-B Member

Donald H. Scott 86 years old of Lexington, Ky passed away on February 26, 1998. Donald retired from ARS after 38 years as a plant geneticist and horticulturist at BARC. He received his B.S. in agriculture at North Dakota Agricultural College and PhD in horticulture from the University of Maryland in 1949. He was a pioneer in small fruits (strawberries) research and received numerous awards for his research the most notable ones being the George M. Darrow Award by the American Society for Horticultural Science in 1977 and the Marshall Pickney Wilder Medal from the American Pomological Society. He founded the Beltsville Garden Club. Memorial gifts can be made to Tates Creek Presbyterian Church Building Fund, 3900 Rapid Run Road, Lexington, KY 40515 and his wife, Addie, can be reached at 3260 Yellowstone Pkwy, Lexington, KY 40515.

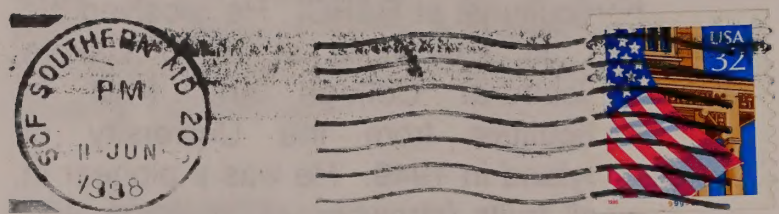
New Leader for ARS Information Staff

Sandy Miller Hays is a native of Fort Smith, Arkansas, and a graduate of the University of Arkansas at Little Rock. She began working for the Arkansas Democrat (now the Arkansas Democrat-Gazette), a statewide daily newspaper based in Little Rock, in the late 1970s. She was named Farm Editor of the Democrat in 1981, and became head of the Democrat's Business & Farm News Department in 1984. From 1981-1988, she also wrote an award-winning column, "From the Ground Up," that ran weekly in the Democrat. In 1988, she joined the Agricultural Research Service as a public affairs specialist and was named Head of Farm and Special News Services for ARS in 1990. In February 1997, Hays was named Chief of the Current Information Branch, ARS' news operation. She became Director of ARS Information in April 1998. Hays also created and conducts the research agency's first-ever media training program for scientists and other agency personnel. She is a member of Phi Kappa Phi; Kappa Tau Alpha, the honor society of journalists; the Society of Professional Journalists; the National Association of Agricultural Journalists, and Investigative Reporters and Editors.

Newsletter Articles Welcome

If you have any information you would like to share with the membership, please send it in and we will include it in our next newsletter.

FRIENDS OF AGRICULTURAL
RESEARCH-BELTSVILLE, Inc.
P.O. Box 1061
Beltsville, MD 20704-1061



Dr. Essex E. Finney, Jr.
11206 Chantilly Lane
Mitchellville, MD 20721

FAR-B NEWSLETTER

Friends of Agricultural Research - Beltsville, Inc.

P.O. Box 1061, Beltsville MD 20704-1061

JUNE 1998 Edition

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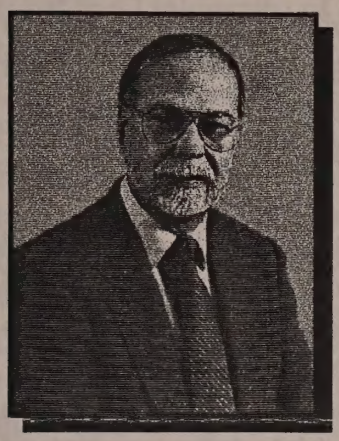

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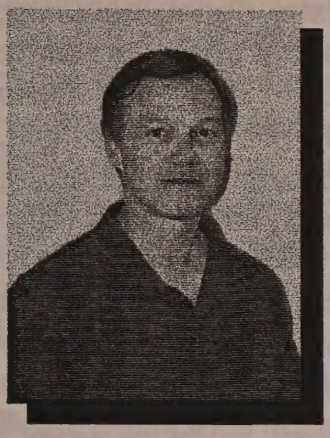

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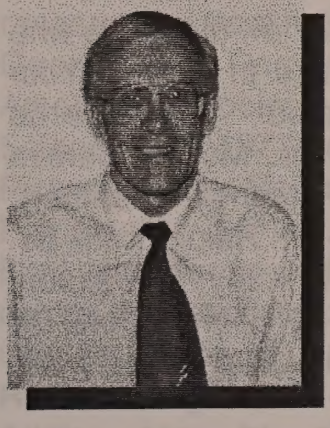


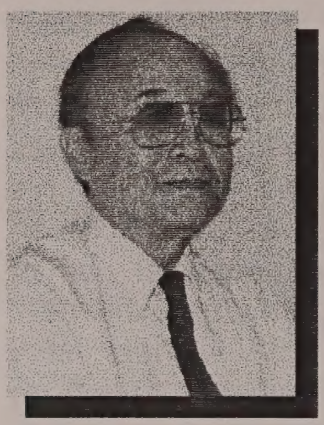
FAR-B congratulates Drs. Sikora and Anderson and wishes them success during the period of their fellowships. All BARC scientists are encouraged to take advantage of the opportunity to submit George W. Irving Fellowship Award proposals next year. These research and training awards are an ideal way to stay on the razors edge of science.

1998 FAR-B Distinguished Scientist Award

Dr. Miklos Faust and Dr. Alley Watada will be co-recipients of the 1998 FAR-B Distinguished Scientist Award which will be presented on May 3rd during Beltsville Symposium XXIII on "Fresh Fruits and Vegetables: Quality and Food Safety." This award has been given by the Friends of Agricultural Research - Beltsville (FAR-B) annually to recognize excellence in research. The first award was given in 1987 to Dr. Mary Shaw Shorb, who did pioneering research on Vitamin B deficiency at Beltsville almost 50 years ago. Last year, the award was presented to Dr. Larry Sikora for his major contributions to research on composting and the beneficial use of organic by-products, a theme of the 1997 symposium. The 1998 winners have made widely recognized contributions to horticultural science.

Miklos Faust, a native of Hungary, began his career at Beltsville in 1966. His entire career is centered around fruit research with an emphasis upon elucidating the nutritional requirements of fruit trees. He determined the biochemistry of fruit color, the role of calcium on fruit quality and storage, the mechanism of dwarfing of fruit trees, the mechanism of russeting, and several other important topics. He has published over 200 scientific articles, reviews and books. His book on physiology of temperature zone fruit trees is used as a textbook throughout the world. He received the Gourley Award of the American Society for Horticultural Science (ASHS) twice for excellence in fruit research and in 1975 was elected a Fellow of ASHS. In 1996, the President of the Hungarian Republic presented Dr. Faust the Commandant-Cross of the Hungarian Republic's Order of Merit, the highest honor of the country.

Dr. Alley E. Watada is being recognized for his many significant contributions in postharvest biology and improved methods for protecting the quality of fresh fruits and vegetables. During his career of almost 30 years at Beltsville, he has served as a Research Food Technologist, Investigations Leader, and Research Leader of the Horticultural Crops Quality Laboratory. His research on sensitivity of fruits and vegetables to chilling, modified atmosphere packaging and storage, and analytical and nondestructive measurements of quality has had a major impact upon reducing the $5 to 7 billion dollar loss that occurs annually in the fresh produce industry during handling, storage, transportation and marketing. The fresh-cut fruits and vegetable industry is a rapidly growing business, and quality and food safety are important issues to producers, marketers and consumers. When the industry began to expand about a decade ago, Dr. Watada initiated research with fresh-cut produce and provided technical guidance as a member of the technical committee of the International Fresh-cut Produce Association. His research in this area resulted in over 50 publications in this critical area over the past 5 years. Dr. Watada has served as Chairman of the Gordon Research Conference, Associate Editor of the Journal of ASHS, was elected a Fellow of ASHS, and awarded the Japan Society for the Promotion of Science Fellowship.



New Members

We welcome several new members who have joined our ranks in 1998. Your support is appreciated. They are as folloiws: Patron - Dr. Morton Beroza (upgrade from Personal Member); Personal Members - Dr. Ralph Bram, Dr. Albert B. DeMilo, Dorothy S. Jessop; Associate Members - Dr. Darrell Cole, Dr. Lawrence J. Sikora, Lora Tanner, and Nancy Thrush.

We still have not received dues for membership renewals from a number of our members. If you have overlooked or misplaced our earlier reminder, please

submit your dues payments as soon a possible. Thanks for your continued support and cooperation.

FAR-B Member Honored

Dr. Morton Beroza, who retired in 1974 as chief of the Organic Chemicals Synthesis Laboratory at BARC, has been selected to present this years Sterling B. Hendricks Memorial Lecture which will be delivered at the American Chemical Society Fall meeting in Boston August 23-27. His presentation is titled "Research in the quest for Safer Insect Pest Management".

Passing of a Long Time FAR-B Member

Donald H. Scott 86 years old of Lexington, Ky passed away on February 26, 1998. Donald retired from ARS after 38 years as a plant geneticist and horticulturist at BARC. He received his B.S. in agriculture at North Dakota Agricultural College and PhD in horticulture from the University of Maryland in 1949. He was a pioneer in small fruits (strawberries) research and received numerous awards for his research the most notable ones being the George M. Darrow Award by the American Society for Horticultural Science in 1977 and the Marshall Pickney Wilder Medal from the American Pomological Society. He founded the Beltsville Garden Club. Memorial gifts can be made to Tates Creek Presbyterian Church Building Fund, 3900 Rapid Run Road, Lexington, KY 40515 and his wife, Addie, can be reached at 3260 Yellowstone Pkwy, Lexington, KY 40515.

New Leader for ARS Information Staff

Sandy Miller Hays is a native of Fort Smith, Arkansas, and a graduate of the University of Arkansas at Little Rock. She began working for the Arkansas Democrat (now the Arkansas Democrat-Gazette), a statewide daily newspaper based in Little Rock, in the late 1970s. She was named Farm Editor of the Democrat in 1981, and became head of the Democrat's Business & Farm News Department in 1984. From 1981-1988, she also wrote an award-winning column, "From the Ground Up," that ran weekly in the Democrat. In 1988, she joined the Agricultural Research Service as a public affairs specialist and was named Head of Farm and Special News Services for ARS in 1990. In February 1997, Hays was named Chief of the Current Information Branch, ARS' news operation. She became Director of ARS Information in April 1998. Hays also created and conducts the research agency's first-ever media training program for scientists and other agency personnel. She is a member of Phi Kappa Phi; Kappa Tau Alpha, the honor society of journalists; the Society of Professional Journalists; the National Association of Agricultural Journalists, and Investigative Reporters and Editors.

Newsletter Articles Welcome

If you have any information you would like to share with the membership, please send it in and we will include it in our next newsletter.

FRIENDS OF AGRICULTURAL
RESEARCH-BELTSVILLE, Inc.
P.O. Box 1061
Beltsville, MD 20704-1061

Francis J. Longen
10114 Towhee Ave.
Adelphi, MD 20783

FAR-B NEWSLETTER

Friends of Agricultural Research - Beltsville, Inc.

P.O. Box 1061, Beltsville MD 20704-1061

JANUARY 1999 Edition

BOARD OF DIRECTORS

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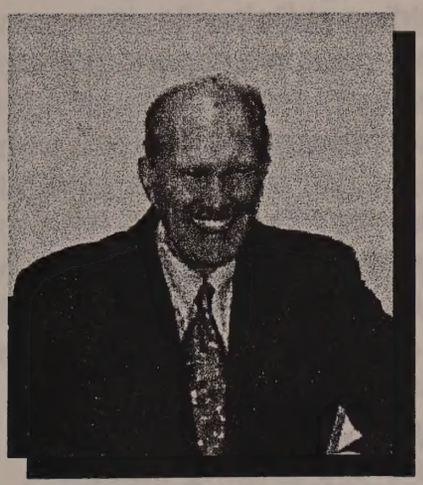
Standing - Essex Finney, Bill Bailey,
Phil Kearney Mort Beroza, ,,,

President's Message



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- we helped to sponsor the Beltsville Symposium XXIII, Fresh Fruit and Vegetables- Quality and Food Safety
- we were able to initiate the George W. Irving Fellowship by providing resources for two BARC scientists to take sabbatical training at scientific institutions abroad.
- we submitted testimony to the U.S. Congress supporting agricultural research, with particular emphasis on the programs at BARC.
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- through the generosity of the family of the late Dr. Miklos Faust, we have sponsored a summer intern program for three students to develop their scientific abilities and skills and to guide their career paths.
- we have provided hospitality , not available with government funds, to dignitaries visiting BARC for a variety of purposes.

Now, FAR-B is in a period of transition. Our President of the past three years, Dr. Phil Kearney, has requested a well deserved break and will assume a new role as Board Member. Dr. Kearney

has done a fabulous job and we will miss his leadership. Thank you Phil!

Our organization, itself, is facing new challenges. There is no plan for a 1999 Beltsville Symposium, normally our most successful fund raising activity. As a result, your Board of Directors is looking for other ways of generating resources so that we can continue, and even expand, programs that help to support research at BARC. We would be interested in any suggestions that you might have in this regard and would welcome your volunteer activities in carrying out new initiatives. Please contact me or any of your Board Members with new ideas to move FAR-B forward.

Thank you for being a friend of agricultural research.

Sincerely,
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Happy New Year. 1999 promises to be an eventful year for the Beltsville Area. The FY99 appropriations bill resulted in an almost 10% increase in the ARS budget, and Beltsville got its share of that increase. In FY98, we had an upturn in the number of scientists on staff for the first time in several years, and we received funding for twelve new positions in the FY99 appropriation. With vacancies created by retirements or other job moves, we have a total of 29 scientific vacancies as of early January. ARS will run a consolidated ad for all scientific vacancies in *Science* for four weeks in January and February. The last time we did this, it created a tremendous interest in ARS as a major scientific employer; we expect good results again this time. The FY99 increases for Beltsville have come in the areas of floral and nursery crops, human nutrition, nutrient management (several positions), food safety (several positions), parasitology, insect biocontrol, mycology, and narcotics.

Within the BA Area Director's Office, interviews are currently being held for the Associate Area Director position. This position has been vacant for more than a year, since I moved in to the Area Director slot. We had 39 applicants for this job, and I'm pleased to say that we have four very strong candidates as finalists for this position. We are looking forward to having our team at full strength again.

The renovation of Building 004, the oldest lab building at Beltsville, is progressing well, and we hope to have scientists moving into the building in the Spring. Also underway are design efforts for a new feed mill, a new poultry barn, and a new building for the Beltsville Human Nutrition Research Center. The University of Maryland College Park will be constructing a new Transgenic Animal Facility at BARC to replace our ageing "mouse house;" we will share use of the building with the University of Maryland. We are also progressing well with the installation of fiber-optic cable to provide connectivity for all of BARC at a level that should meet our needs for some time to come. During February, NPS will be moving into the new Beltsville Office Facility on

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Purpose: To respond to major local issues of mutual concern involving the Beltsville Agricultural research Center. Provide appropriate information to legislators and other public officials on the needs of agricultural research.

Dr. Miklos Faust Awarded 1998 Friendship Award

Several months before his death in

June, Dr. Miklos Faust was informed by officials in the Peoples Republic of China that he had been chosen to receive that country's Friendship Award for 1998 which was to be presented at a ceremony in Beijing, China, on September 29, 1998. Unfortunately he did not live to be able to receive this award personally. However, his widow, Dr. Maria Faust, was invited to travel to China where she graciously accepted the award on his behalf.

The award recognized Dr. Faust as the leader in assisting China with modernizing fruit research and production. This highest civilian award is the most prestigeous government prize for foreign experts from overseas for their contribution to China's reform and modernization drive in agriculture, industry, technology, and education. China has invited 80,000 foreign experts in the past two decades and in 1998 presented 46 awards. The winners came from 17 countries, and 12 scientists were from the United States. Dr. Faust's award was the only one given in horticulture science.

Dr. Faust first visited China in 1980, which resulted in almost two decades of cooperation between the Fruit Laboratory at Beltsville and the Department of Horticulture at the University of Beijing. He was invited by the People's Republic of China as the first Lecturer in fruit production from abroad. Later he served as a Lecturer at the University of Shenyang in 1984, and University Shaanxi Tagu, in 1985. He was a special consultant to the World Bank and the Food and Agriculture Organization UNESCO for developing a large Fruit Research Center in Shjaanxi, in midwest China. He also participated in the evaluation of progress of eleven Chinese Agricultural Universities for the World Bank.

The presentation of this Friendship Award has brought great honor to the memory of Dr. Faust, to his family, and to the ARS Beltsville Agricultural Research Center.

Greetings from Waldemar Klassen

Recently Al DeMilo called to request that I give a brief account of my activities. As many know, I had 25 golden years with ARS and I shall always be grateful for the opportunities provided by ARS to serve in various capacities: Bench Scientists, Research Leader, Asst. to Deputy Administrator, National Program Leader, Director of the Beltsville Area and Associate Deputy Administrator. Upon retiring in 1990, I took a position with the FAO/IAEA Joint Division for Nuclear Techniques in Food and Agriculture, Vienna, Austria. For two years I served as Chief, Insect and Pest Control Section of the Joint Division. During this time we assisted in the eradication of the New World Screw worm from North America. For two additional years I served as Deputy Division Director. The Joint Division was involved in programs in about 90 developing countries, and thus I was able to expand my knowledge of tropical agriculture.

Since July 1994 I have served as Director of the Tropical Research and Education Center, University of Florida, Homestead. This Center is located 30 miles south of Miami between Everglades National Park and Biscayne Marine National Park. We have 14 full time faculty members and a total employment of ca. 90. Initially much effort was required to complete the

rebuilding of the Center in wake of Hurricane Andrew. However here hurricanes are only one of agriculture's challenges. Agriculture is threatened by urban encroachment (Miami Dade County already has 2 million people and another 700,000 are expected within two decades) and by the inexorable globalization of trade. Nevertheless this County's agriculture has an impact of more than $830 million and employs 23,000 people.

South Florida is an important gateway to the Caribbean and Latin America not only for people, but unfortunately also for a steady stream of unwanted exotic organisms. The National Plant Board has asked me to chair one of its committees on strengthening our Nation's capacity to defend against harmful exotic organisms. These organisms have required me to seek assistance from taxonomists and systematists in Beltsville. In addition we have had very fruitful cooperation in bean breading with Dr. Rene Stavely and in vegetable production with Dr. Aref Abdul-Baki. We are very grateful for ARS for continuing the Subtropical Horticulture Research Station in Miami and for establishing an Agro-hydrology Research Unit. Our formal and informal cooperation with ARS is of utmost importance in enabling us to meet pressing and long-term needs of this region.

OUT REACH PROGRAM

On Monday October 19, 1998 FAR-B sponsored an all-day visit to BARC for the sixth-grade class of SEABROOK ELEMENTARY SCHOOL. This effort was coordinated by FAR-B Member Hank Dickson.

Located near the Beltway not far from Goddard Space Flight Center, Seabrook E.S. is a small-enrollment school with origins dating back almost 100 years. Its one-room predecessor has been restored by MNCPPC and sits one block away from the current building, which opened in 1952.

Seabrook E.S. is currently reacting on many fronts, along with seven or eight other schools in P.G. County, as they attempt to fend off a possible takeover by the State Board of Education.

The Seabrook faculty is working to broaden the outside experiences of all its students. FAR-B chose this field trip with the idea of providing special experiences for the 26 members of Mrs. SHARON BAILEY's 6th grade class, experiences which probably would be new to all of them. By all accounts, the day was a tremendous success.

In October, the students were all eleven years of age. Following are excerpts from the letters they sent to the Information Staff Members (John Kucharski, Jeanette Baylor, and Jay Green), who were with the students the whole day:

What I liked best about the trip was the bugs. They were my favorite because that bug on the lady's shirt was neat - it never moved. Thank you again for taking us around the Agricultural Research Center. That was nice of you.

TIFFANY

The best thing I likes was the blue and teal caterpiller climbing on the lady scientist's shirt. One thing I learned was that if a cow has a special kind of disc on its side, you can stick your hand in and get stuff out. I also thought that was gross.

JAMIE GILLESPIE

I would like to thank you and the other people you work with for buying us our favorite pizza

for lunch. Also, I never knew that pig's saliva made cologne and that a bull is seperated from its mother so soon.

RENALDO

I learned a lot about the satellites that can detect moisture in the soil. I also learned more information about insects killing fungi. Thank you, I learned a lot on this trip.

CHRIS PARKINSON

One of the activities I liked was the green house. I liked the idea of how they used the computers to change the tempurature and water the plants. I thought all pigs were little, but the ones we saw were humongous.

CORDELL WILLIAMS

Thank you for all the great tour you gave us. I am 11 years old, from Mexico, love video games, but most importantly my hobby is drawing things. I'm still trying to learn Japanese animation. And as for the field trip, thanx again!

NESTOR SUAREZ

I would like to that you for providing us with your vans. They were much better than buses would have been. And also for the delicious pizza.

ARINZE

MIKLOS FAUST

It is with much regret that we inform our members of the of the death of Dr. Miklos Faust, a world-renowned horticulturist who specialized in fruit research at BARC for over 30 years. Our last Newsletter was at the printer when we learned of his death on June 6 so we could not advise you of his passing earlier. "Mike" was a charter member of FAR-B and a great supporter of our work with BARC.

From 1972 to 1992, Dr. Faust was Research Leader of the Fruit Laboratory and he was instrumental in determining the nutritional requirements of fruit trees. During his career, he ascertained the biochemistry of red color development in apples, the role of calcium in fruit quality, the dwarfing mechanism of fruit trees and the mechanisms of flower bud development. He wrote more than 200 scientific articles and a book, "The Physiology of Temperate Zone Fruit Trees", which is used as a plant physiology textbook at colleges and universities throughout the world. As an adjunct faculty member at the University of Maryland, he taught plant physiology and horticulture. He sponsored postdoctoral fellows and directed research of doctoral students.

Dr. Faust was born in Nagbereny, Hungary, and graduated from the College of Horticulture and Viticulture of Budapest. He later came to the United States and received a master's degree in horticulture from Rutgers University in 1960 and a doctorate in horticulture from Cornell University in 1962. He worked for United Fruit Company in New York, then in 1966 came to the Washington area and joined the USDA/ARS at Beltsville. He retired in 1996.

During his career Dr. Faust participated in cooperative research with scientists from Hungary, Poland, China, India, Pakistan, Italy, Germany, Israel, and the United Kingdom. He lectured widely in China. Twice he received the American Society for Horticulture's Gourley award for excellence in fruit research. He was a fellow of the American Society for Horticulture Science, and he received an honorary doctorate in 1992 from the Horticulture and Food Science University in Budapest. From 1992 to 1996 he was president of the International Society for Horticulture Science.

Annual FAR-B Membership Dues are due for 1999

January 1, 1999 marks the beginning of a new membership year. It is also the time we remind our members to renew their membership. As is our custom, we will be sending out post-card reminders but you can make our task easier if you would use this article as your reminder and send in your dues payment as promptly as possible. A few of our members have already sent their dues for 1999, and for this we are very grateful. Dues for 1999 remain unchanged; that is:

Patrons - $100.;
Personal Members - $20
Associate Members - $10
(USDA employees)
Sustaining Members - $500. & over.

We desperately need new members. In the past year our membership has declined slightly when we should be growing. I would like to ask each of our members to enlist one new member in 1999. If we could do that, we could double our membership. Your support is vital to our mission to assist BARC and we are counting on your continued cooperation. As a reminder, your dues contributions are tax deductible.

National Visitors Center

The ARS National Visitor Center (NVC) completed a banner year in 1998, hosting over twenty thousands visitors. Our guest came from all corners of the globe from China to Egypt, from Russia to Australia, from South Africa to Finland, and yes, even North Korea. In short, we hosted delegations from forty foreign countries. We also hosted fifteen Colleges/Universities including Johns Hopkins, Penn State, Texas A&M, Kentucky State, and a series of media representatives including the Discovery Channel and the Learning Channel. A point of interest is that in 1998, we hosted more visitors from the agricultural and ag-related business than the previous year. Groups such as the Arkansas Farm Bureau, National Association of Animal Breeders, FFA Advisors from all corners of the USA, Leadership Foundation of Idaho and Hawaii, National Cattleman and Grazing Association to name a few.

The NVC has a new addition to the staff, Rossanah Taylor. Rossanah will be giving tours in addition to helping with our outreach program. The NVC is presently in the process of hiring another Information Specialist to help us with our tours. In addition to permanent staffing, Boy Scouts working on their Eagle rank continually help us around the NVC nature trail. We anxiously await the arrival of the new bus that was ordered. Funding for the bus came from the Information Staff. As Frank Sinatra would say, "It was a very good year."

Newsletter Articles Welcome

If you have any information you would like to share with the membership, please send it in and we will include it in our next newsletter.

Remember to attend the 1999 FAR-B ANNUAL Meeting to be held Wednesday APRIL 7 , 1999 2pm, Room 20, Building 003.

Guest Speaker : Dr. Darwin Murrell, Deputy Administrator ARS National Program Staff. Topic: Research Direction for ARS.

FRIENDS OF AGRICULTURAL
RESEARCH-BELTSVILLE, Inc.
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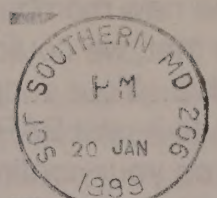

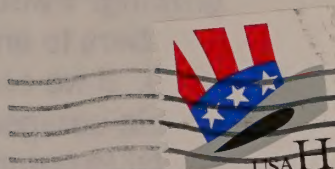

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FAR-B NEWSLETTER

Friends of Agricultural Research - Beltsville, Inc.

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JANUARY 1999 Edition

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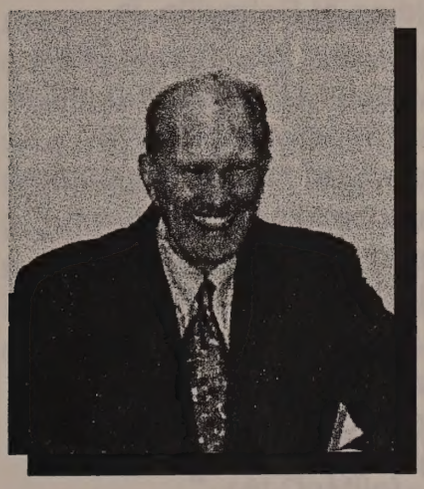

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Dr. Miklos Faust Awarded 1998 Friendship Award

Several months before his death in

June, Dr. Miklos Faust was informed by officials in the Peoples Republic of China that he had been chosen to receive that country's Friendship Award for 1998 which was to be presented at a ceremony in Beijing, China, on September 29, 1998. Unfortunately he did not live to be able to receive this award personally. However, his widow, Dr. Maria Faust, was invited to travel to China where she graciously accepted the award on his behalf.

The award recognized Dr. Faust as the leader in assisting China with modernizing fruit research and production. This highest civilian award is the most prestigeous government prize for foreign experts from overseas for their contribution to China's reform and modernization drive in agriculture, industry, technology, and education. China has invited 80,000 foreign experts in the past two decades and in 1998 presented 46 awards. The winners came from 17 countries, and 12 scientists were from the United States. Dr. Faust's award was the only one given in horticulture science.

Dr. Faust first visited China in 1980, which resulted in almost two decades of cooperation between the Fruit Laboratory at Beltsville and the Department of Horticulture at the University of Beijing. He was invited by the People's Republic of China as the first Lecturer in fruit production from abroad. Later he served as a Lecturer at the University of Shenyang in 1984, and University Shaanxi Tagu, in 1985. He was a special consultant to the World Bank and the Food and Agriculture Organization UNESCO for developing a large Fruit Research Center in Shjaanxi, in midwest China. He also participated in the evaluation of progress of eleven Chinese Agricultural Universities for the World Bank.

The presentation of this Friendship Award has brought great honor to the memory of Dr. Faust, to his family, and to the ARS Beltsville Agricultural Research Center.

Greetings from Waldemar Klassen

Recently Al DeMilo called to request that I give a brief account of my activities. As many know, I had 25 golden years with ARS and I shall always be grateful for the opportunities provided by ARS to serve in various capacities: Bench Scientists, Research Leader, Asst. to Deputy Administrator, National Program Leader, Director of the Beltsville Area and Associate Deputy Administrator. Upon retiring in 1990, I took a position with the FAO/IAEA Joint Division for Nuclear Techniques in Food and Agriculture, Vienna, Austria. For two years I served as Chief, Insect and Pest Control Section of the Joint Division. During this time we assisted in the eradication of the New World Screw worm from North America. For two additional years I served as Deputy Division Director. The Joint Division was involved in programs in about 90 developing countries, and thus I was able to expand my knowledge of tropical agriculture.

Since July 1994 I have served as Director of the Tropical Research and Education Center, University of Florida, Homestead. This Center is located 30 miles south of Miami between Everglades National Park and Biscayne Marine National Park. We have 14 full time faculty members and a total employment of ca. 90. Initially much effort was required to complete the

rebuilding of the Center in wake of Hurricane Andrew. However here hurricanes are only one of agriculture's challenges. Agriculture is threatened by urban encroachment (Miami Dade County already has 2 million people and another 700,000 are expected within two decades) and by the inexorable globalization of trade. Nevertheless this County's agriculture has an impact of more than $830 million and employs 23,000 people.

South Florida is an important gateway to the Caribbean and Latin America not only for people, but unfortunately also for a steady stream of unwanted exotic organisms. The National Plant Board has asked me to chair one of its committees on strengthening our Nation's capacity to defend against harmful exotic organisms. These organisms have required me to seek assistance from taxonomists and systematists in Beltsville. In addition we have had very fruitful cooperation in bean breading with Dr. Rene Stavely and in vegetable production with Dr. Aref Abdul-Baki. We are very grateful for ARS for continuing the Subtropical Horticulture Research Station in Miami and for establishing an Agro-hydrology Research Unit. Our formal and informal cooperation with ARS is of utmost importance in enabling us to meet pressing and long-term needs of this region.

OUT REACH PROGRAM

On Monday October 19, 1998 FAR-B sponsored an all-day visit to BARC for the sixth-grade class of SEABROOK ELEMENTARY SCHOOL. This effort was coordinated by FAR-B Member Hank Dickson.

Located near the Beltway not far from Goddard Space Flight Center, Seabrook E.S. is a small-enrollment school with origins dating back almost 100 years. Its one-room predecessor has been restored by MNCPPC and sits one block away from the current building, which opened in 1952.

Seabrook E.S. is currently reacting on many fronts, along with seven or eight other schools in P.G. County, as they attempt to fend off a possible takeover by the State Board of Education.

The Seabrook faculty is working to broaden the outside experiences of all its students. FAR-B chose this field trip with the idea of providing special experiences for the 26 members of Mrs. SHARON BAILEY's 6th grade class, experiences which probably would be new to all of them. By all accounts, the day was a tremendous success.

In October, the students were all eleven years of age. Following are excerpts from the letters they sent to the Information Staff Members (John Kucharski, Jeanette Baylor, and Jay Green), who were with the students the whole day:

What I liked best about the trip was the bugs. They were my favorite because that bug on the lady's shirt was neat - it never moved. Thank you again for taking us around the Agricultural Research Center. That was nice of you.

TIFFANY

The best thing I liked was the blue and teal caterpiller climbing on the lady scientist's shirt. One thing I learned was that if a cow has a special kind of disc on its side, you can stick your hand in and get stuff out. I also thought that was gross.

JAMIE GILLESPIE

I would like to thank you and the other people you work with for buying us our favorite pizza

for lunch. Also, I never knew that pig's saliva made cologne and that a bull is seperated from its mother so soon.

RENALDO

I learned a lot about the satellites that can detect moisture in the soil. I also learned more information about insects killing fungi. Thank you, I learned a lot on this trip.

CHRIS PARKINSON

One of the activities I liked was the green house. I liked the idea of how they used the computers to change the tempurature and water the plants. I thought all pigs were little, but the ones we saw were humongous.

CORDELL WILLIAMS

Thank you for all the great tour you gave us. I am 11 years old, from Mexico, love video games, but most importantly my hobby is drawing things. I'm still trying to learn Japanese animation. And as for the field trip, thanx again!

NESTOR SUAREZ

I would like to that you for providing us with your vans. They were much better than buses would have been. And also for the delicious pizza.

ARINZE

MIKLOS FAUST

It is with much regret that we inform our members of the of the death of Dr. Miklos Faust, a world-renowned horticulturist who specialized in fruit research at BARC for over 30 years. Our last Newsletter was at the printer when we learned of his death on June 6 so we could not advise you of his passing earlier. "Mike" was a charter member of FAR-B and a great supporter of our work with BARC.

From 1972 to 1992, Dr. Faust was Research Leader of the Fruit Laboratory and he was instrumental in determining the nutritional requirements of fruit trees. During his career, he ascertained the biochemistry of red color development in apples, the role of calcium in fruit quality, the dwarfing mechanism of fruit trees and the mechanisms of flower bud development. He wrote more than 200 scientific articles and a book, "The Physiology of Temperate Zone Fruit Trees", which is used as a plant physiology textbook at colleges and universities throughout the world. As an adjunct faculty member at the University of Maryland, he taught plant physiology and horticulture. He sponsored postdoctoral fellows and directed research of doctoral students.

Dr. Faust was born in Nagbereny, Hungary, and graduated from the College of Horticulture and Viticulture of Budapest. He later came to the United States and received a master's degree in horticulture from Rutgers University in 1960 and a doctorate in horticulture from Cornell University in 1962. He worked for United Fruit Company in New York, then in 1966 came to the Washington area and joined the USDA/ARS at Beltsville. He retired in 1996.

During his career Dr. Faust participated in cooperative research with scientists from Hungary, Poland, China, India, Pakistan, Italy, Germany, Israel, and the United Kingdom. He lectured widely in China. Twice he received the American Society for Horticulture's Gourley award for excellence in fruit research. He was a fellow of the American Society for Horticulture Science, and he received an honorary doctorate in 1992 from the Horticulture and Food Science University in Budapest. From 1992 to 1996 he was president of the International Society for Horticulture Science.

Annual FAR-B Membership Dues are due for 1999

January 1, 1999 marks the beginning of a new membership year. It is also the time we remind our members to renew their membership. As is our custom, we will be sending out post-card reminders but you can make our task easier if you would use this article as your reminder and send in your dues payment as promptly as possible. A few of our members have already sent their dues for 1999, and for this we are very grateful. Dues for 1999 remain unchanged; that is:

Patrons - $100.;
Personal Members - $20
Associate Members - $10
(USDA employees)
Sustaining Members - $500. & over.

We desperately need new members. In the past year our membership has declined slightly when we should be growing. I would like to ask each of our members to enlist one new member in 1999. If we could do that, we could double our membership. Your support is vital to our mission to assist BARC and we are counting on your continued cooperation. As a reminder, your dues contributions are tax deductible.

National Visitors Center

The ARS National Visitor Center (NVC) completed a banner year in 1998, hosting over twenty thousands visitors. Our guest came from all corners of the globe from China to Egypt, from Russia to Australia, from South Africa to Finland, and yes, even North Korea. In short, we hosted delegations from forty foreign countries. We also hosted fifteen Colleges/Universities including Johns Hopkins, Penn State, Texas A&M, Kentucky State, and a series of media representatives including the Discovery Channel and the Learning Channel. A point of interest is that in 1998, we hosted more visitors from the agricultural and ag-related business than the previous year. Groups such as the Arkansas Farm Bureau, National Association of Animal Breeders, FFA Advisors from all corners of the USA, Leadership Foundation of Idaho and Hawaii, National Cattleman and Grazing Association to name a few.

The NVC has a new addition to the staff, Rossanah Taylor. Rossanah will be giving tours in addition to helping with our outreach program. The NVC is presently in the process of hiring another Information Specialist to help us with our tours. In addition to permanent staffing, Boy Scouts working on their Eagle rank continually help us around the NVC nature trail. We anxiously await the arrival of the new bus that was ordered. Funding for the bus came from the Information Staff. As Frank Sinatra would say, "It was a very good year."

Newsletter Articles Welcome

If you have any information you would like to share with the membership, please send it in and we will include it in our next newsletter.

Remember to attend the 1999 FAR-B ANNUAL Meeting to be held Wednesday APRIL 7 , 1999 2pm, Room 20, Building 003.

Guest Speaker : Dr. Darwin Murrell, Deputy Administrator ARS National Program Staff. Topic: Research Direction for ARS.

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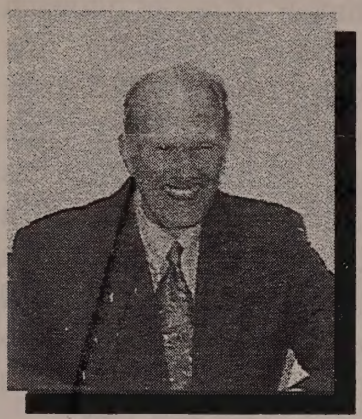
FAR-B NEWSLETTER

Friends of Agricultural Research - Beltsville, Inc.

P.O. Box 1061, Beltsville MD 20704-1061

JUNE 1999 Edition

President's Message



FAR-B is Y2K ready! Our Annual Meeting in April was a grand success with over 40 members in attendance. Your new Board of Directors has taken office; the transition was smooth. New assignments include planning by Mort Beroza and Walter Rawls for co-sponsorship of the next BARC Symposium, Animals 2000. Our regular programs to assist BARC scientists continue to provide services not available with Federal funds. Through the leadership of Essex Finney, we have stepped up our efforts to educate Congressional leaders about the importance of research conducted at BARC and the need to provide adequate budgetary support. The Corporate Relations Committee, led by Al DeMilo, will invite 50 major agribusinesses that benefit from research performed at BARC to become Sustaining Members who contribute $500 per year to FAR-B. Two other new activities, community outreach, chaired by Hank Dixon, and publicity, chaired by Jim Butcher, have been approved by the new Board of Directors. We hope that these directions are in keeping with the needs of BARC scientists and the interests of our membership.

Still, we need help. FAR-B faces two challenges common to most volunteer organizations: (1) We need new members who are dedicated to the objectives of FAR-B; and (2) we need more funding to carry out programs that support BARC research. Thus, I would like to ask every FAR-B to recruit at least one colleague to become either a Patron (contributing $100 per year), a Personal Member (retired employees contributing $20 per year), or an Associate Member (active Federal employees contributing $10 per year) during the year 2000. If we can increase our membership by even half, FAR-B will celebrate the year 2000 as a watermark year in its history. We have enclosed a FAR-B brochure with this newsletter for you to share with a friend or colleague. Regarding resources, your Board of Directors would welcome ideas or proposals that could enhance our financial base so that we may continue, even expand, our level of support at BARC.

Thank you for being a friend of agricultural research.

Sincerely,
Ralph A. Bram
President
rabram@rcn.com

Area Director's Message

The Beltsville Area Office is pleased to announce the appointment of Dr. Ron Korcak as the new Associate Area Director. Dr. Korcak is a soils scientist who has built a distinguished research career on his expert knowledge of soil treatments. From 1995 to 1999 he was associate director of BARC's Plant Sciences Institute. He also worked with the U.S. Army Corps of Engineers, the BARC Fruit Laboratory, and the University of Maryland's Department of Horticulture. Dr. Korcak holds a B.S. degree from Cornell University and Masters and Ph.D. degrees from the University of Maryland.

Congress is still working on the President's FY 2000 budget. Although the final budget must await House/Senate conference action before we know the end product that we will be working with next year, the Beltsville Area appreciates the support that FAR-B has provided in their letters to the House and Senate appropriations committees.

We are now in the design stage for a new roof for Building 004. The design for the new Transgenic Animal Facility on BARC-East is progressing. The University of Maryland is building the facility but will share it with LPSI scientists at BARC. A new Level 3 greenhouse facility, now under design and construction, will support our biocontrol efforts on narcotic plants. It will be constructed in Range 1 on BARC-West.

Since the beginning of calendar year 1999, the Beltsville Area has hired five new Category 1 scientists. There are currently 19 Category 1 vacancies at BARC.

Congressman Paul Kanjorski from Pennsylvania and his Chief of Staff spent a half-day touring BARC, meeting with plant scientists, and discussing biotechnology strategies for the future. As an April follow-up, new staffers for Congressman Kanjorski and Senator Pat Roberts also toured and visited BARC.

BARC has had a number of recent outreach programs and activities, including the formation of a Workplace Diversity Task force and an Awards Ceremony for Beltsville Area Supervisory Training. The Beltsville Area has also taken the lead on setting up a demonstration on the use of BioDiesel as a replacement for regular diesel fuel. BioDiesel contains 20% soybean oil and is supposed to be a more environmentally friendly fuel. This demonstration will start about mid-July.

New Board of Directors

The following slate of officers was presented and approved by the membership at the annual meeting in April:

Ralph A. Bram, President
rabrm@rcn.com
Philip Kearney, Vice President
pkearney@asrr.arsusda.gov
Albert B. DeMilo, Treasurer
ademilo@asrr.arsusda.gov
Walter J. Rawls, Executive Secretary
wrawls@hydrolab.arsusda.gov
William A. Bailey, Board Member
wbaily@erols.com
Jim Butcher, Board Member
jim@bellatlantic.net
Frank Longen, Board Member
flongen@juno.com
Mort Beroza, Board Member
Essex Finney, Board Member

E-mail

We know that quite a few of you now have e-mail. If you have it, please send us any comments. Also, we would like to hear from retired members. What are you doing in retirement?

New Board Member

Jim Butcher, a career USDA employee, joined the Board at our most recent annual meeting. Jim spent most of his career in international programs management. His first ARS job was a animal husbandry officer in St. Croix, U.S. Virgin Islands. When he learned that a young Beltsville animal geneticist named Dean Plowman was looking for help with an identical twin calves project, Jim signed on for a tour in Building 173. One office over, sat Ned Bayley who was destined to hold the position that is now the Under Secretary for Research, Education, and Economics. Over on Poultry Road sat a third collaborator in the person of Terry Kinney. Both Kinney and Plowman eventually became ARS Administrators.

But when an offer came for Jim to rejoin the ARS international programs group, he took about five seconds to say yes. He retired in 1990 from the Foreign Agricultural Service as Program Leader for Binational Programs. He had worked with a portfolio that included the Special Foreign Currency Research Program (P.L. 480), the U.S.-Spain Treaty for Friendship and Cooperation, Staff Officer to the American Directors of the U.S.-Israel Binational Agricultural Research and Development Fund (BARD), a Defense-State-USDA Japanese beetle project in the Azores, a Heavy Metals projects in Bulgaria, and numerous other interagency and interdepartmental programs.

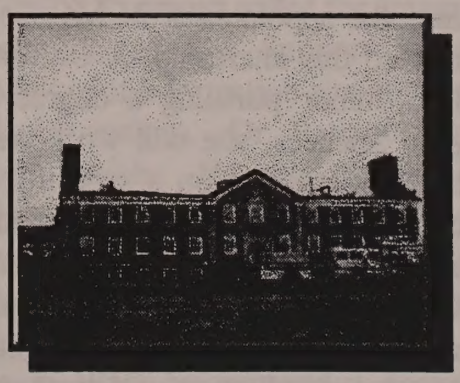
In retirement, Jim spent several years on a cooperative agreement between the Foreign Agricultural Service and College of Agriculture and Natural Resources, University of Maryland. That work will culminate with two University of Maryland publications, now in press. Written for an international audience, one publication describes the Maryland experience from tiny agricultural college to modern Land-Grant institution. The second discusses the college as it is today, based on interviews with the dean, associate deans, and department chairs. The university plans on making these publications available in five languages: Chinese, Russian, Spanish, French, and the original English.

Jim writes regularly in the Beltsville News on BARC and other topics. If you have a newsworthy story for the paper, give him a call on 301-937-3179.

Congressman Steny Hoyer Tours BARC Facilities

Congressman Steny Hoyer spent most of February 17 at BARC accessing recent fire damage, discussing appropriations for future projects, and inspecting the site of the future human nutrition center. Hoyer was accompanied by BARC Director Dr. Phyllis Johnson.

Hoyer toured the remains of Building 004 which was partially destroyed in a fire on January 15, 1999. No one was hurt in the fire, but it destroyed the roof and part of the interior. Hoyer expressed pleasant surprise at the rapid clean-up. Fire department officials have ruled out arson, declaring the fire of undetermined origin.



Many of BARC's buildings are now 50 to 80 years old, Hoyer noted. He has successfully worked in Congress to secure more than $107 million in funding over 12 years to renovate many of these facilities. Some completed projects include the Natural Resources Building, a state-of-the-art Wastewater Treatment Facility, the Horticulture Sciences Building, and the Dairy Research facility.

Mr. Hoyer also inspected the site of the future human nutrition center. BARC is a leader in this field and plans to build two additional buildings for human nutrition research. In FY 1997, BARC received $1.7 million to design the human nutrition buildings. Mr. Hoyer has requested an additional $13 million for the human nutrition buildings--the request is pending in the FY 2000 Congressional appropriations process. Also, Congress appropriated $2.5 million in the current fiscal year for a new poultry building and other small projects at BARC.

FAR-B/Miklos Faust Summer Intern Program

Through a generous grant from Dr. Maria A. Faust, widow of the late Dr. Miklos Faust, we have established the FAR-B/Miklos Faust Summer Intern Program as a tribute to "Mike". We are using the grant to employ a summer intern in the Fruit Laboratory where Mike mainly spent his Beltsville career. The Fruit Laboratory handled recruitment, supplemented by FAR-B contacts at the University of Maryland. We are pleased to announce the appointment of Ms. Courtney Robinson to this internship. A University of Maryland Junior pursuing a degree in the biological sciences, she will work with Dr. Freddi Hammerschlag on a special research project to determine optimum conditions for high frequency Agrobacterium-mediated gene transfer into commercially important cultivars of strawberry. Achieving this goal will facilitate the introduction of fungal resistant genes into strawberry, thus lessening the dependence on pesticides.

Throughout Mike Faust's BARC career, he took special interest in developing the scientific talents and skills of young people. Thus, it is entirely fitting the we use Dr. Maria Faust's grant in this manner. We wish Ms. Robinson well and look forward to receiving her brief final report at the conclusion of her internship.

Membership

Our FAR-B membership continues to hold rather steady. We now have a total of 187 members, including: Sustaining Members -2; Patrons - 16; Personal Members-84; and Associate Members-85. Most members have renewed their membership for 1999, but a few have not renewed as yet. We're sure that this has been an oversight in most cases. If you have not sent in your 1999 dues, please do so at your earliest convenience.

We want to extend a special "welcome" to several new members who have joined our ranks in 1999. They include: Patrons - Anna Nesterova Liers, Thomas O. Oyler, and A. Lloyd Ryall (upgrade from Personal Member); Personal Members - Anita M. Collins, Janet F. Ferst, Roger J. Gerrits, James L. Hourrigan, Sueo Nakahara, and Harold F. Winters; Associate Members - Nadine E. Hiers, Ruth A. Mangum, Nancy J. Miller-Ihli, F. Christian Thompson, and Kevin W. Thorpe. We are very pleased that these new members share our desire to assist BARC and look forward to their continued association with FAR-B.

FAR-B Supports KIDS & CHEMISTRY Outreach Program

Kids & Chemistry was a hands-on science outreach program sponsored by the American Chemical Society. Participating scientists

receive training in working with children, how to nurture children's curiosity, and how to do hands-on experiments with children. A team of volunteers, providing one volunteer for every four-to-six children, visited an elementary school classroom for 75-90 minutes. Each team brought supplies needed to perform a series of hands-on experiments. The team visited the same classroom up to four times during the year.

The team in Prince George's County was based at BARC. We volunteered at Laurel, Mount Rainier, and Mattaponi elementary schools, working with fifth graders for four years. We also had a table at the Prince George's County Fair one summer. We did experiments such as Jiggle Jelly, Acid Rain, Chemical Reactions, Yeast Beasts, and Colonial Ink. The students enjoyed doing hands-on science which many of them never received in their regular curriculum. They learned a little bit of science and discovered that scientists are not the inhuman figures too often portrayed in the media.

Financial support was provided by the Washington Chemical Society, Laurel Elementary, Mattaponi PTKA, the Beltsville Area, and FAR-B. We would like to take this opportunity to thank FAR-B members for their support of our efforts in science outreach in Prince George's County

Regrets

Kenneth A. Haines

We were saddened to learn of the death of Kenneth A. Haines, a long-time USDA and ARS employee and a charter-member of FAR-B. Ken passed away on June 7 after a stroke. He was 92. Ken worked for the USDA from 1934 until his retirement in 1976. At the time of his retirement, he was the Director of the ARS International Programs Division which administered P.L. 480 research and other international programs. He was an entomology graduate of Purdue University, in his home state, and held a master's degree from Ohio State University. He worked for the USDA in Massachusetts before coming to the Washington area. He joined the ARS International Programs Division in 1959. His career included tours as head of the U. S. delegation to the U. N. Food and Agriculture Organization, and he traveled widely overseas. He was a member of the Board of Science Education for the Greater Washington Area and of the Washington Academy of Science. Ken is survived by his wife of 63 years, Helen, of Arlington, and by two sons.

Dr. Lekh R. Batra

We were also saddened to learn of the death of another former BARC researcher and long-time FAR-B member- Dr. Lekh R. Batra. Dr. Batra died May 20 at the Washington Hospital Center of a cerebral hemorrhage. He was 69. Dr. Batra was a widely recognized mycologist, specializing in fungus research. He began his career at BARC in 1967, after teaching in his native India, at Swarthmore College, and the University of Kansas. In the course of his research, he cultured and identified thousands of unknown fungi from around the world. He discovered 38 new fungus species, five new genera, two new families, a new order and seven unknown fungus diseases of plants. He published more than 130 works, including articles in *Scientific American* and *Science* and four books. After retiring from ARS in 1994, Dr. Batra became coordinator of the food and agriculture aspects of a UNESCO project called the International Encyclopedia of Life Support Systems, a compilation of information aimed at assisting developing nations. Dr. Batra was born in western Punjab. He was the first family member to attend high school and college. He received his bachelor's and master's degrees in botany, both with honors, from a branch of Punjab University. After coming to the United States in 1956, he received a doctorate in

botany from Cornell University. Dr. Batra was active in volunteer work in Greenbelt, where he lived, and was an advisor to the Prince George's County school science program. He was also a member of the Beltsville Rotary Club. Dr. Batra is survived by his wife, Dr. Suzanne Batra, and by two grown children.

Dr. Patricia C. Jackson

We regret to advise our members of the death of Dr. Patricia C. Jackson on March 30, 1999. She was 73. "Pat" was a long-time member of FAR-B, joining in 1986 as Associate Member, and enrolling as a Patron in 1992 following her retirement a couple years earlier. She served on our Board of Directors from 1992 to 1997. Dr. Jackson was born in Philadelphia and raised in Bedford, VA. She attended Randolph Macon College where she earned her bachelor's degree and later became a member of that College's Board of Trustees. She began a career with the USDA-ARS at Beltsville in the late 1950's and had an outstanding career in plant physiology and biochemistry with BARC. She organized a number of national symposia on biochemistry and was a founder of the American Society of Plant Physiologists. She was also a member of the United Daughters of the Confederacy and sang with the Laurel Oratorio Society, Columbia Choral Society, and Mount Zion Church Choir. She retired in 1989.

JOHN R. DOBRINSKY Receives 1999 GEORGE W. IRVING FELLOWSHIP

John R. Dobrinsky, a research physiologist in BARC's Germplasm and Gamete Physiology Laboratory, is the 1999 recipient of the prestigious George W. Irving Fellowship Award. The Irving Fellowship program, now in its second year, supports three-to-six month collaborative research or study programs at U.S. or foreign institutions. In certain instances, awards may be extended for up to one year.

Dr. Dobrinsky will take his collaborative research program at the Roslin Institute in Edinburgh, Scotland, home to the renowned research team led by Prof. Ian Wilmut. In 1996, Prof. Wilmut's team announced the birth of Dolly, the sheep, the world's first mammal born with the intervention of advanced cloning technology. Dolly was produced from cells collected from the udder of an another sheep. Dr. Dobrinsky brings to Roslin a specialized knowledge of swine embryology. He and his Roslin colleagues have set a goal of producing the world's first cloned pigs before the close of the century. Success would establish a new benchmark in cloning technology. The potential applications are enormous. Farmers could look forward to more profitable production. Consumers may see leaner, more healthful pork products. Bio-medical researchers would find themselves armed with a valuable new tool in the endless battle against human diseases.

Dr. Dobrinsky is from Illiopolis, Illinois, where his father practiced veterinary medicine for many years. He holds B.S. and M.S. degrees from the University of Illinois and a Ph.D. degree from the University of Massachusetts. Among his accomplishments since joining BARC in 1992 is a "scientific first" achieved by producing live piglets from vitrified embryos that had been supercooled to -400°F. Dr. Dobrinsky and his wife, Cindy, live in Beltsville. Scientific contact: Lawrence A. Johnson, Research Leader, Germplasm and Gamete Physiology Laboratory, BA, ARS, USDA, BARC-East, B-200, Rm. 124, Beltsville, MD 20705; phone 301-504-8009, fax 301-504-5123, E-mail lajohnsn@lpsi.barc.usda.gov.

Industrial Relations Committee

The Industrial Relations Committee is pursuing new initiatives to seek financial support from private firms or organizations in the agribusiness community and who have a

mutual interest in the goals of FAR-B. Letters requesting this support are being drafted and will be mailed soon. Priority will be given to groups most likely to directly benefit from research achievements of BARC scientists.

Focus Committee

The Focus Committee has, again, prepared written testimony to support increased funding for Beltsville in the President's proposed FY 2000 budget, which as this is written, is before the Appropriations Committees of the U. S. House of Representatives and the U. S. Senate. We delivered the testimony to the appropriate committees and local elected officials on March 11, 1999. You will note that we gave special emphasis to complete funding of $22 million for a new Human Nutrition Center facility and to budget increases for high priority research initiatives in biologically based IPM, National Nutrient Database program, Food Composition methods, and risk management of livestock wastes. FAR-B members are encouraged to write personal letters to their Senators and Representatives urging their support for funding of these ARS high priority programs at BARC. Material emphasizing the importance of the Beltsville research program nationally was sent to the House and Senate agricultural appropriation committees. We have received a supportive response from Senator Barbara Mikulski.

BARC Symposium

The 2000 BARC Symposium will honor the 90th anniversary of the Beltsville Agricultural Research Center. It will be titled "Helping Animals 2000."

Newsletter Articles Welcome

If you have information you would like to share with the membership, please send it to us. We will include it in our January newsletter.

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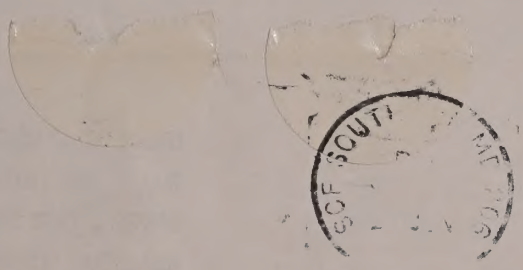
Beltsville, MD 20704-1061



Francis J. Langen
10114 Towhee Ave.
Adelphi, MD 20783

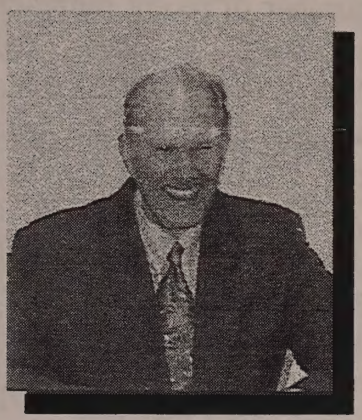
FAR-B NEWSLETTER

Friends of Agricultural Research - Beltsville, Inc.

P.O. Box 1061, Beltsville MD 20704-1061

JUNE 1999 Edition

President's Message



FAR-B is Y2K ready! Our Annual Meeting in April was a grand success with over 40 members in attendance. Your new Board of Directors has taken office; the transition was smooth. New assignments include planning by Mort Beroza and Walter Rawls for co-sponsorship of the next BARC Symposium, Animals 2000. Our regular programs to assist BARC scientists continue to provide services not available with Federal funds. Through the leadership of Essex Finney, we have stepped up our efforts to educate Congressional leaders about the importance of research conducted at BARC and the need to provide adequate budgetary support. The Corporate Relations Committee, led by Al DeMilo, will invite 50 major agribusinesses that benefit from research performed at BARC to become Sustaining Members who contribute $500 per year to FAR-B. Two other new activities, community outreach, chaired by Hank Dixon, and publicity, chaired by Jim Butcher, have been approved by the new Board of Directors. We hope that these directions are in keeping with the needs of BARC scientists and the interests of our membership.

Still, we need help. FAR-B faces two challenges common to most volunteer organizations: (1) We need new members who are dedicated to the objectives of FAR-B; and (2) we need more funding to carry out programs that support BARC research. Thus, I would like to ask every FAR-B to recruit at least one colleague to become either a Patron (contributing $100 per year), a Personal Member (retired employees contributing $20 per year), or an Associate Member (active Federal employees contributing $10 per year) during the year 2000. If we can increase our membership by even half, FAR-B will celebrate the year 2000 as a watermark year in its history. We have enclosed a FAR-B brochure with this newsletter for you to share with a friend or colleague. Regarding resources, your Board of Directors would welcome ideas or proposals that could enhance our financial base so that we may continue, even expand, our level of support at BARC.

Thank you for being a friend of agricultural research.

Sincerely,
Ralph A. Bram
President
rabram@rcn.com

Area Director's Message

The Beltsville Area Office is pleased to announce the appointment of Dr. Ron Korcak as the new Associate Area Director. Dr. Korcak is a soils scientist who has built a distinguished research career on his expert knowledge of soil treatments. From 1995 to 1999 he was associate director of BARC's Plant Sciences Institute. He also worked with the U.S. Army Corps of Engineers, the BARC Fruit Laboratory, and the University of Maryland's Department of Horticulture. Dr. Korcak holds a B.S. degree from Cornell University and Masters and Ph.D. degrees from the University of Maryland.

Congress is still working on the President's FY 2000 budget. Although the final budget must await House/Senate conference action before we know the end product that we will be working with next year, the Beltsville Area appreciates the support that FAR-B has provided in their letters to the House and Senate appropriations committees.

We are now in the design stage for a new roof for Building 004. The design for the new Transgenic Animal Facility on BARC-East is progressing. The University of Maryland is building the facility but will share it with LPSI scientists at BARC. A new Level 3 greenhouse facility, now under design and construction, will support our biocontrol efforts on narcotic plants. It will be constructed in Range 1 on BARC-West.

Since the beginning of calendar year 1999, the Beltsville Area has hired five new Category 1 scientists. There are currently 19 Category 1 vacancies at BARC.

Congressman Paul Kanjorski from Pennsylvania and his Chief of Staff spent a half-day touring BARC, meeting with plant scientists, and discussing biotechnology strategies for the future. As an April follow-up, new staffers for Congressman Kanjorski and Senator Pat Roberts also toured and visited BARC.

BARC has had a number of recent outreach programs and activities, including the formation of a Workplace Diversity Task force and an Awards Ceremony for Beltsville Area Supervisory Training. The Beltsville Area has also taken the lead on setting up a demonstration on the use of BioDiesel as a replacement for regular diesel fuel. BioDiesel contains 20% soybean oil and is supposed to be a more environmentally friendly fuel. This demonstration will start about mid-July.

New Board of Directors

The following slate of officers was presented and approved by the membership at the annual meeting in April:

Ralph A. Bram, President
rabrm@rcn.com
Philip Kearney, Vice President
pkearney@asrr.arsusda.gov
Albert B. DeMilo, Treasurer
ademilo@asrr.arsusda.gov
Walter J. Rawls, Executive Secretary
wrawls@hydrolab.arsusda.gov
William A. Bailey, Board Member
wbaily@erols.com
Jim Butcher, Board Member
jim@bellatlantic.net
Frank Longen, Board Member
flongen@juno.com
Mort Beroza, Board Member
Essex Finney, Board Member

E-mail

We know that quite a few of you now have e-mail. If you have it, please send us any comments. Also, we would like to hear from retired members. What are you doing in retirement?

New Board Member

Jim Butcher, a career USDA employee, joined the Board at our most recent annual meeting. Jim spent most of his career in international programs management. His first ARS job was a animal husbandry officer in St. Croix, U.S. Virgin Islands. When he learned that a young Beltsville animal geneticist named Dean Plowman was looking for help with an identical twin calves project, Jim signed on for a tour in Building 173. One office over, sat Ned Bayley who was destined to hold the position that is now the Under Secretary for Research, Education, and Economics. Over on Poultry Road sat a third collaborator in the person of Terry Kinney. Both Kinney and Plowman eventually became ARS Administrators.

But when an offer came for Jim to rejoin the ARS international programs group, he took about five seconds to say yes. He retired in 1990 from the Foreign Agricultural Service as Program Leader for Binational Programs. He had worked with a portfolio that included the Special Foreign Currency Research Program (P.L. 480), the U.S.-Spain Treaty for Friendship and Cooperation, Staff Officer to the American Directors of the U.S.-Israel Binational Agricultural Research and Development Fund (BARD), a Defense-State-USDA Japanese beetle project in the Azores, a Heavy Metals projects in Bulgaria, and numerous other interagency and interdepartmental programs.

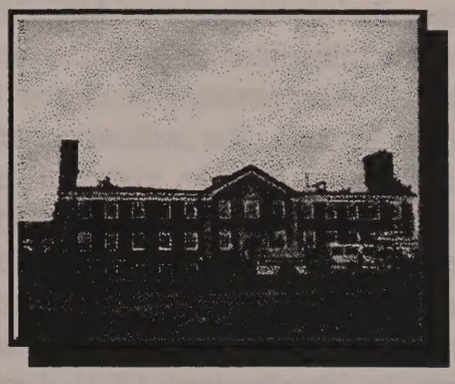
In retirement, Jim spent several years on a cooperative agreement between the Foreign Agricultural Service and College of Agriculture and Natural Resources, University of Maryland. That work will culminate with two University of Maryland publications, now in press. Written for an international audience, one publication describes the Maryland experience from tiny agricultural college to modern Land-Grant institution. The second discusses the college as it is today, based on interviews with the dean, associate deans, and department chairs. The university plans on making these publications available in five languages: Chinese, Russian, Spanish, French, and the original English.

Jim writes regularly in the Beltsville News on BARC and other topics. If you have a newsworthy story for the paper, give him a call on 301-937-3179.

Congressman Steny Hoyer Tours BARC Facilities

Congressman Steny Hoyer spent most of February 17 at BARC accessing recent fire damage, discussing appropriations for future projects, and inspecting the site of the future human nutrition center. Hoyer was accompanied by BARC Director Dr. Phyllis Johnson.

Hoyer toured the remains of Building 004 which was partially destroyed in a fire on January 15, 1999. No one was hurt in the fire, but it destroyed the roof and part of the interior. Hoyer expressed pleasant surprise at the rapid clean-up. Fire department officials have ruled out arson, declaring the fire of undetermined origin.



Many of BARC's buildings are now 50 to 80 years old, Hoyer noted. He has successfully worked in Congress to secure more than $107 million in funding over 12 years to renovate many of these facilities. Some completed projects include the Natural Resources Building, a state-of-the-art Wastewater Treatment Facility, the Horticulture Sciences Building, and the Dairy Research facility.

Mr. Hoyer also inspected the site of the future human nutrition center. BARC is a leader in this field and plans to build two additional buildings for human nutrition research. In FY 1997, BARC received $1.7 million to design the human nutrition buildings. Mr. Hoyer has requested an additional $13 million for the human nutrition buildings--the request is pending in the FY 2000 Congressional appropriations process. Also, Congress appropriated $2.5 million in the current fiscal year for a new poultry building and other small projects at BARC.

FAR-B/Miklos Faust Summer Intern Program

Through a generous grant from Dr. Maria A. Faust, widow of the late Dr. Miklos Faust, we have established the FAR-B/Miklos Faust Summer Intern Program as a tribute to "Mike". We are using the grant to employ a summer intern in the Fruit Laboratory where Mike mainly spent his Beltsville career. The Fruit Laboratory handled recruitment, supplemented by FAR-B contacts at the University of Maryland. We are pleased to announce the appointment of Ms. Courtney Robinson to this internship. A University of Maryland Junior pursuing a degree in the biological sciences, she will work with Dr. Freddi Hammerschlag on a special research project to determine optimum conditions for high frequency Agrobacterium-mediated gene transfer into commercially important cultivars of strawberry. Achieving this goal will facilitate the introduction of fungal resistant genes into strawberry, thus lessening the dependence on pesticides.

Throughout Mike Faust's BARC career, he took special interest in developing the scientific talents and skills of young people. Thus, it is entirely fitting the we use Dr. Maria Faust's grant in this manner. We wish Ms. Robinson well and look forward to receiving her brief final report at the conclusion of her internship.

Membership

Our FAR-B membership continues to hold rather steady. We now have a total of 187 members, including: Sustaining Members -2; Patrons - 16; Personal Members-84; and Associate Members-85. Most members have renewed their membership for 1999, but a few have not renewed as yet. We're sure that this has been an oversight in most cases. If you have not sent in your 1999 dues, please do so at your earliest convenience.

We want to extend a special "welcome" to several new members who have joined our ranks in 1999. They include: Patrons - Anna Nesterova Liers, Thomas O. Oyler, and A. Lloyd Ryall (upgrade from Personal Member); Personal Members - Anita M. Collins, Janet F. Ferst, Roger J. Gerrits, James L. Hourrigan, Sueo Nakahara, and Harold F. Winters; Associate Members - Nadine E. Hiers, Ruth A. Mangum, Nancy J. Miller-Ihli, F. Christian Thompson, and Kevin W. Thorpe. We are very pleased that these new members share our desire to assist BARC and look forward to their continued association with FAR-B.

FAR-B Supports KIDS & CHEMISTRY Outreach Program

Kids & Chemistry was a hands-on science outreach program sponsored by the American Chemical Society. Participating scientists

receive training in working with children, how to nurture children's curiosity, and how to do hands-on experiments with children. A team of volunteers, providing one volunteer for every four-to-six children, visited an elementary school classroom for 75-90 minutes. Each team brought supplies needed to perform a series of hands-on experiments. The team visited the same classroom up to four times during the year.

The team in Prince George's County was based at BARC. We volunteered at Laurel, Mount Rainier, and Mattaponi elementary schools, working with fifth graders for four years. We also had a table at the Prince George's County Fair one summer. We did experiments such as Jiggle Jelly, Acid Rain, Chemical Reactions, Yeast Beasts, and Colonial Ink. The students enjoyed doing hands-on science which many of them never received in their regular curriculum. They learned a little bit of science and discovered that scientists are not the inhuman figures too often portrayed in the media.

Financial support was provided by the Washington Chemical Society, Laurel Elementary, Mattaponi PTKA, the Beltsville Area, and FAR-B. We would like to take this opportunity to thank FAR-B members for their support of our efforts in science outreach in Prince George's County

Regrets

Kenneth A. Haines

We were saddened to learn of the death of Kenneth A. Haines, a long-time USDA and ARS employee and a charter-member of FAR-B. Ken passed away on June 7 after a stroke. He was 92. Ken worked for the USDA from 1934 until his retirement in 1976. At the time of his retirement, he was the Director of the ARS International Programs Division which administered P.L. 480 research and other international programs. He was an entomology graduate of Purdue University, in his home state, and held a master's degree from Ohio State University. He worked for the USDA in Massachusetts before coming to the Washington area. He joined the ARS International Programs Division in 1959. His career included tours as head of the U. S. delegation to the U. N. Food and Agriculture Organization, and he traveled widely overseas. He was a member of the Board of Science Education for the Greater Washington Area and of the Washington Academy of Science. Ken is survived by his wife of 63 years, Helen, of Arlington, and by two sons.

Dr. Lekh R. Batra

We were also saddened to learn of the death of another former BARC researcher and long-time FAR-B member- Dr. Lekh R. Batra. Dr. Batra died May 20 at the Washington Hospital Center of a cerebral hemorrhage. He was 69. Dr. Batra was a widely recognized mycologist, specializing in fungus research. He began his career at BARC in 1967, after teaching in his native India, at Swarthmore College, and the University of Kansas. In the course of his research, he cultured and identified thousands of unknown fungi from around the world. He discovered 38 new fungus species, five new genera, two new families, a new order and seven unknown fungus diseases of plants. He published more than 130 works, including articles in *Scientific American* and *Science* and four books. After retiring from ARS in 1994, Dr. Batra became coordinator of the food and agriculture aspects of a UNESCO project called the International Encyclopedia of Life Support Systems, a compilation of information aimed at assisting developing nations. Dr. Batra was born in western Punjab. He was the first family member to attend high school and college. He received his bachelor's and master's degrees in botany, both with honors, from a branch of Punjab University. After coming to the United States in 1956, he received a doctorate in

botany from Cornell University. Dr. Batra was active in volunteer work in Greenbelt, where he lived, and was an advisor to the Prince George's County school science program. He was also a member of the Beltsville Rotary Club. Dr. Batra is survived by his wife, Dr. Suzanne Batra, and by two grown children.

Dr. Patricia C. Jackson

We regret to advise our members of the death of Dr. Patricia C. Jackson on March 30, 1999. She was 73. "Pat" was a long-time member of FAR-B, joining in 1986 as Associate Member, and enrolling as a Patron in 1992 following her retirement a couple years earlier. She served on our Board of Directors from 1992 to 1997. Dr. Jackson was born in Philadelphia and raised in Bedford, VA. She attended Randolph Macon College where she earned her bachelor's degree and later became a member of that College's Board of Trustees. She began a career with the USDA-ARS at Beltsville in the late 1950's and had an outstanding career in plant physiology and biochemistry with BARC. She organized a number of national symposia on biochemistry and was a founder of the American Society of Plant Physiologists. She was also a member of the United Daughters of the Confederacy and sang with the Laurel Oratorio Society, Columbia Choral Society, and Mount Zion Church Choir. She retired in 1989.

JOHN R. DOBRINSKY Receives 1999 GEORGE W. IRVING FELLOWSHIP

John R. Dobrinsky, a research physiologist in BARC's Germplasm and Gamete Physiology Laboratory, is the 1999 recipient of the prestigious George W. Irving Fellowship Award. The Irving Fellowship program, now in its second year, supports three-to-six month collaborative research or study programs at U.S. or foreign institutions. In certain instances, awards may be extended for up to one year.

Dr. Dobrinsky will take his collaborative research program at the Roslin Institute in Edinburgh, Scotland, home to the renowned research team led by Prof. Ian Wilmut. In 1996, Prof. Wilmut's team announced the birth of Dolly, the sheep, the world's first mammal born with the intervention of advanced cloning technology. Dolly was produced from cells collected from the udder of an another sheep. Dr. Dobrinsky brings to Roslin a specialized knowledge of swine embryology. He and his Roslin colleagues have set a goal of producing the world's first cloned pigs before the close of the century. Success would establish a new benchmark in cloning technology. The potential applications are enormous. Farmers could look forward to more profitable production. Consumers may see leaner, more healthful pork products. Bio-medical researchers would find themselves armed with a valuable new tool in the endless battle against human diseases.

Dr. Dobrinsky is from Illiopolis, Illinois, where his father practiced veterinary medicine for many years. He holds B.S. and M.S. degrees from the University of Illinois and a Ph.D. degree from the University of Massachusetts. Among his accomplishments since joining BARC in 1992 is a "scientific first" achieved by producing live piglets from vitrified embryos that had been supercooled to -400°F. Dr. Dobrinsky and his wife, Cindy, live in Beltsville. Scientific contact: Lawrence A. Johnson, Research Leader, Germplasm and Gamete Physiology Laboratory, BA, ARS, USDA, BARC-East, B-200, Rm. 124, Beltsville, MD 20705; phone 301-504-8009, fax 301-504-5123, E-mail lajohnsn@lpsi.barc.usda.gov.

Industrial Relations Committee

The Industrial Relations Committee is pursuing new initiatives to seek financial support from private firms or organizations in the agribusiness community and who have a

mutual interest in the goals of FAR-B. Letters requesting this support are being drafted and will be mailed soon. Priority will be given to groups most likely to directly benefit from research achievements of BARC scientists.

Focus Committee

The Focus Committee has, again, prepared written testimony to support increased funding for Beltsville in the President's proposed FY 2000 budget, which as this is written, is before the Appropriations Committees of the U. S. House of Representatives and the U. S. Senate. We delivered the testimony to the appropriate committees and local elected officials on March 11, 1999. You will note that we gave special emphasis to complete funding of $22 million for a new Human Nutrition Center facility and to budget increases for high priority research initiatives in biologically based IPM, National Nutrient Database program, Food Composition methods, and risk management of livestock wastes. FAR-B members are encouraged to write personal letters to their Senators and Representatives urging their support for funding of these ARS high priority programs at BARC. Material emphasizing the importance of the Beltsville research program nationally was sent to the House and Senate agricultural appropriation committees. We have received a supportive response from Senator Barbara Mikulski.

BARC Symposium

The 2000 BARC Symposium will honor the 90th anniversary of the Beltsville Agricultural Research Center. It will be titled "Helping Animals 2000."

Newsletter Articles Welcome

If you have information you would like to share with the membership, please send it to us. We will include it in our January newsletter.

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FAR-B NEWSLETTER

Friends of Agricultural Research - Beltsville, Inc.

P.O. Box 1061, Beltsville MD 20704-1061

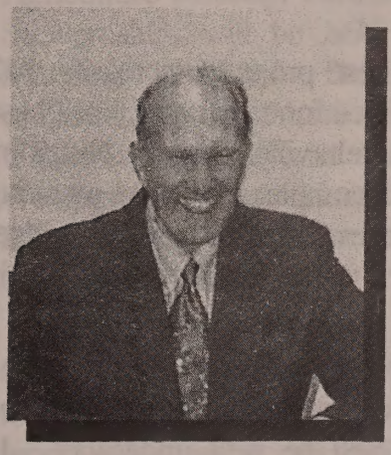
JANUARY 2000 Edition

HAPPY NEW YEAR FROM FAR-B BOARD OF DIRECTORS

From left to right

Front: Albert DeMilo, Jim Butcher, Walter Rawls

Back: Frank Longen, Mort Beroza, Ralph Bram, Philip Kearney, Bill Baliey



PRESIDENT'S MESSAGE

On behalf of the FAR-B Board of Directors, I extend all best wishes for a healthy and happy new millennium to each of you and your families.

As a result of your generous contributions to our organization, this past year has been most successful. FAR-B was active in co-sponsoring several one-day symposia and field days including: the Chesapeake Bay Day; the Beef Cattle Day; the Food and Health Symposium; and the BARC Poster Day. In cooperation with the ARS National Visitors Center, FAR-B sponsored an outreach program for local sixth grade students that featured the importance of research and the major role that agriculture plays in their lives. We also provided refreshments for visiting scientists conducting in-depth laboratory reviews at BARC and for the new employee orientation program. Through the generosity of the Faust family, FAR-B sponsored the FAR-B/Miklos Faust Summer Internship for a University of Maryland student to conduct studies with commercial strawberry cultivars. The prestigious George W. Irving Fellowship was awarded to Dr. John R. Dobrinski of the Germplasm and Gamete Physiology Laboratory. He traveled to the Roslin Institute in Edinburgh, Scotland (home of Dolly, the sheep) to conduct research leading to the production of cloned pigs. Jim Butcher has added a new dimension to our publicity efforts, writing articles about BARC and FAR-B for the print media. Al DeMilo is taking the initiative to send solicitations to selected members of the agricultural community, requesting contributions that will help in solving critical agricultural problems.

Under the leadership of Essex Finney, FAR-B provided written testimony to Congressional Budget Committees in support of the President's budget proposals for agricultural research, with special emphasis to the needs of BARC. Letters were also sent to the Maryland Congressional Delegation. We were delighted to learn that, with the support of The Honorables Paul S. Sarbanes and Barbara A.

Mikulski of the United States Senate along with The Honorable Steny H. Hoyer of the United States House of Representatives, BARC received $13 million for phase I construction of the new Human Nutrition Research Center facility. New funds for research were also designated for the GRIN program, parasitology, horticultural quality, and human nutrition. For FAR-B, the future truly looks bright. Phil Kearney is chairing a committee to examine our goals and objectives in order to make recommendations on how to assure that FAR-B is even more responsive to the needs of BARC scientists. This committee will also identify potential sources of new revenue that can be used for FAR-B projects. Preparations are already underway for FAR-B to co-sponsor the **Beltsville Symposium, Healthy Animals 2000**. Co-sponsorship of a one-day symposium, **Invasive Species**, is being planned. In addition, our year 2000 budget includes resources for: The George W. Irving Fellowship Award; the FAR-B/Miklos Faust

Summer Internship; the FAR-B Distinguished Scientist Award; two field days; the BARC Poster Day; refreshments for in-depth laboratory reviews, new employee orientations, and other special events; and the community outreach program. Of course, we will continue to provide testimony to Congressional Budget Committees and other elected officials in support of BARC research.

Your FAR-B Board of Directors meets on the second Tuesday of every month in Building 003, room 238 at 1:00 p.m. All members and potential members are cordially invited to attend these meetings and participate in the deliberations that affect the future of FAR-B. Please plan to attend the FARB annual meeting on April 11, 2000.

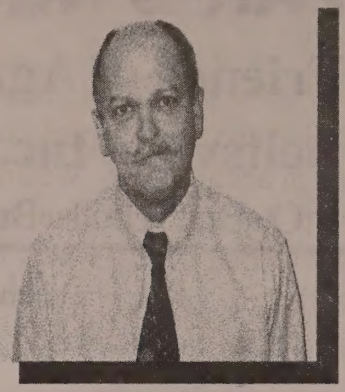
Thank you for being a friend of agricultural research.

Sincerely,

Ralph A. Bram, President

rabram@rcn.com

Associate Area Director's Message



The FY00 budget process is over and the Beltsville Area is in the process of implementing $2 million in increases. Specifically, additional funds were received for the National Germplasm Resources Laboratory ($225K), $360K for a new food safety position in the Horticultural Crops Quality Laboratory, the Biocontrol of Plant Diseases Laboratory received $120K for work on cacao, and $45K was added to the Soybean and Alfalfa Research Laboratory for work on microsatellite markers in wheat. All of these increases were in the PSI. The Parasite Biology and Epidemiology Laboratory in LPSI received an additional $360K for risk assessment in microbiological models. The Food Composition Laboratory and the Nutrient Data Laboratory of BHNRC both received an addition $225K for work on food separation/extraction methods and nutrient data collection of foods, respectively.

In addition to these program increases, $13 million was received for construction of Phase I of the new Beltsville Human Nutrition Research Center complex. We are awaiting the Departmental markups of the FY01 budget and look forward to the President's budget in early February.

By the time this message has been published the year 2000 will be well underway. In anticipation of the potential Y2K problems, the Beltsville Area prepared a Day One Plan to cover any contingency which may occur when the year 2000 arrives. Many individuals and much time was spent on developing the Day One Plan. The benefit beyond being prepared for Day One difficulties is that it will also serve

as an emergency plan for any prolonged outage or emergency.

Work will begin on the new roof for Building 004 in January 2000 and we expect to reoccupy the building in about a year. We are also looking forward to the initiation of construction of a new animal facility which is a collaboration with the University of Maryland, a new feed mill and a biocontrol greenhouse during early 2000.

A number of outreach activities are already being planned for 2000. On January 13 BARC will host a Biodiesel Seminar to provide information to other federal, state and private agencies on the benefits of using Biodiesel as a replacement for diesel fuel. The BARC Biodiesel Demonstration has been successfully going on since August 1999. The 90th anniversary of animal research at BARC will be the theme of this years BARC Symposium, Healthy Animals 2000. A one-day Invasive Species Symposium is planned for February 15. This symposium will highlight current research in the Plant Sciences Institute dealing with invasive weeds, fungi, nematodes and insects. The annual winter Sustainable Agriculture meeting, Farming for Profit and Stewardship, will be held in Hagerstown, Maryland in March. The meeting will be cosponsored by Future Harvest and the University of Maryland Extension Service. We appreciate the continued support of FAR-B in planning and conducting many of these outreach activities.

One of the goals of the Area Office for 2000 is to expand and enhance out outreach via the world wide web. As a first step in this direction is the creation of a new diversity web page which has been added to the BARC web page. The diversity page can be reached by going to http://www.ba.ars.usda.gov.

Lastly, Dr. Barbara Leonhardt, Director of the Plant Sciences Institute, retired from ARS at the end of 1999. Barbara did an outstanding job in leading the Institute for over four years. Her presence will be sorely missed at BARC.

BARC DELIVERS LOCAL. NATIONAL ECONOMIC RETURNS

One would be hard pressed to find a Beltsville resident who doesn't find some joy in living next door to the big agricultural research facility in our community. Officially, it's called the Beltsville Agricultural Research Center (BARC), and it sprawls for over 6,700 acres on either side of Route 1.

Among other good things, BARC rewards us with bucolic vistas of rolling green fields, pastures filled with contented black-and-white cows, natural forest lands--all signaling welcome solace for the harried suburban spirit. Those rewards alone might be reason enough to celebrate having the big friendly neighbor in our town.

Solace for the suburbanite aside, one might fairly inquire about other, more earthly rewards. What about BARC's economic impact for instance? What about employment? What has BARC research done to reward agriculture? Consumers?

In a recent informal summary, BARC director Dr. Phyllis Johnson addressed questions like these. Here are highlights of what she has to say about the economic returns that Beltsville and the surrounding larger community -- indeed the nation -- reap from BARC.

Local Economic Impact:

The Beltsville Area's annual budget (includes the National Arboretum) pumps $110 million into the local economy. The Beltsville Area pays out $62 million per year in salary costs alone, which is conservatively estimated to generate over $280 million worth of economic activity for the general community.

Most of the 1,300 employees live in Prince George's County. Some commute from other nearby Maryland counties or the District of Columbia. A few hardy souls commute every day from Virginia. A meticulous observer might even spot a rare Pennsylvania car among the local cars parked near one of BARC's 450 buildings.

BARC annually spends $10-20 million locally on supplies and equipment. Annual construction contracts have run $2-4 million in recent years. Moreover, BARC received a special appropriation of $13 million this year for new construction and expansion of the Beltsville Human Nutrition Research Center.

National Economic Impact:

Topics as esoteric as this one can easily bog down in disciplinary jargon. Many economists have measured the national impact of publicly supported agricultural research in economic terms. Dr. Johnson likes to cite highly regarded economists W.E. Huffman and R.E. Evenson, who estimate the annual return on agricultural research to be in the range of 135-170 percent. Virginia Tech's George W. Norton puts it this way: "knowledge may take several years to produce, then pay off for a long period of time... A recent analysis found roughly a $5 return, spread over a 15- to 20-year period, for each dollar invested in agricultural research."

Selected National Research Accomplishments:

Another, perhaps more expressive way to affirm BARC's national impacts at century's end is to scroll down a list of national accomplishments. Here, selected by decade, is Dr. Johnson's sample of national accomplishments:

1910: ***BARC established with the beginning of dairy cattle research.*** Today, the ***National Cooperative Herd Improvement Program*** evaluates the genetic merit of dairy cattle worldwide; ***recently, the program has reduced cost of milk to consumers by $60 million per year.***

20s and 30s: ***Released first landscape roses, several still in the marketplace. Released the first pest-resistant potato varieties.***

40s: ***Developed soilless plant growing media*—including widely used *vermiculite*; *discovered DEET*—**the principal ingredient in insect repellents that repels deer ticks, mosquitoes, chiggers and fleas. ***Today*, DEET is the *active ingredient in over 35 commercial repellents. From WWII through Operation Desert Storm and Somalia, DEET protected U.S. soldiers*** from malaria-bearing mosquitoes and other disease-carrying pests.

50s: Developed an ***artificial attractant for the Mediterranean fruit fly***—used worldwide for monitoring; ***defined energy requirements for lactating dairy cows***—leading to a practical feeding system recommended by the National Academy of Science to dairy farmers nationwide; ***saved the Great Lakes strawberry industry*** by releasing strawberry varieties resistant to red stele, a root-rotting fungus; pioneered research on plant responses to light quality and day length—culminating in the ***discovery of phytochrome, leading to major progress in understanding how plants biosynthesize complex carbohydrates.***

60s: ***Did groundwork leading to methoprene—the most widely used household insecticide;*** contributed to the ***Green Revolution***—a turning point in agriculture that drastically reduced world hunger; identified and ***supplied disease resistant wheat to***

plant breeding centers around the world; identified methionine as the precursor of ethylene——a plant hormone promoting fruit ripening, impacting agriculture and biology worldwide.

70s: ***Identified a chemical insect attractant for the gypsy moth***——leading to traps for this forest-destroying pest; ***developed poinsettias for the commercial floral and nursery trade; developed chemicals to prolong fruit shelf-life and storage-life; released the potato variety Atlantic——still the number one potato chipping variety grown in the United States; discovered plant viroids——a class of plant-disease causing particles 80 times smaller than viruses; developed*** a **practical** ***test for the presence of viroids in potatoes.*** In the mid-1990s, ***this test saved the entire $30 million Maine seed potato industry.***

80s: ***Originated high quality, large-fruited blueberry varieties that sparked a new, profitable cultivated blueberry industry; discovered phytoplasmas——a previously unknown class of organisms that cause plant diseases; found that dietary selenium supplements enhance the effective treatment of malaria patients; developed near-infrared reflectance——a new technology that revolutionized international grain marketing systems. Supermarkets now use this technology to measure fat content in meats; first transgenic animals (pigs) born at Beltsville.***

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FAR-B/MIKLOS FAUST SUMMER INTERN PROGRAM

In our last Newsletter we reported that we had received a generous grant from Dr. Maria A. Faust, widow of the late Dr. Miklos Faust, with which we established the FAR-B/Miklos Faust Summer Intern Program as a tribute to "Mike". Last year's recipient of the internship, Miss Courtney Robinson, who was assigned to the Fruit Laboratory, gave a presentation of her summer project at a ceremony held in late August. Dr. Maria Faust presented Miss Robinson with a Certificate of Appreciation at that time. Miss Robinson's project assignment involved determining optimum conditions for high frequency Agrobacterium-related gene transfer into commercially important cultivars of strawberry. We are pleased that with the funds remaining in the grant we are sponsoring the FAR-B/Miklos Faust Summer Intern Program for another year. The intern for the year 2000 will be assigned to the Vegetable Laboratory, another of the laboratories with which "Mike's" career was involved. We are working with Dr. Autar Mattoo in developing a suitable assignment for the intern and in locating candidates from which a selection will be made. We will report further on this program in a subsequent Newsletter.

NEWS FROM MEMBERS

From Terry Kinney

FAR-B is a meaningful and influential group and I am delighted to have been accepted as a member. Although I am geographically distant from BARC. I hope to be able to contribute in some ways and to attend meetings occasionally.

When I retired in June 1988 from a most satisfying career with ARS, Carol and I moved to York, South Carolina and immediately became active in volunteer work. For several years we counseled at halfway houses for drug addicts. It was a happy-sad experience, but we find it rewarding. We built a modest home on three acres of land and had fun with vegetable gardens, fruit trees, and berries. After getting settled we added about 16 hours a week of volunteer work at Gaston Memorial Hospital to our activities. I also tutored and counseled at York Place, a home for abused preteens. That too was rewarding but I shed many tears. It's amazing how many abused boys and girls there are that we know about. Carol is an ordained preacher and we taught at a number of churches in the Carolinas and Tennessee for several years.

In 1995 I had two heart attacks and had to have by-pass surgery. The doctors advised me to slow down a bit and I did find myself tiring easily. So, we decided to sell our property and try apartment life. We found a lovely apartment with a pool and exercise room in Gastonia, North Carolina. We began to pick up our volunteer work again. However, walking out the front door and being in a hallway with elevators and stairs soon became less than exciting. We looked again and finally built a home on a small naturalized lot in Rock Hill, South Carolina. Within months we found that Carol had fibromyalgia and Chronic Lymphocytic Leukenia (CLL). Neither is necessarily life threatening, but quite often debilitating. We finally agreed to move once more to get away from the sloping lot and stairs.

A patio home back in Gastonia North Carolina is our final home. It is a separate home with a small flat lot that is easily maintained. It has a two car garage so I can have a work bench and we can park our "good car" inside. We are doing fine and ready to move back into volunteer work. So between that and our ten grandchildren, we are kept busy. Occasionally I hear on TV, in the press, or the internet about some ARS research or about a particular scientist and I feel a great pride in having been a member of such a dynamic organization.

2000 GEORGE W. IRVING FELLOWSHIP

FAR-B is seeking nominations for the 2000 George W. Irving Fellowship Award. The program provides opportunities for research or educational programs away from Beltsville for periods up to one year. The award will cover up to $10,000 in travel and associated costs. Research scientists (Category 1 or 4) in grade 13 or above and administrative personnel in grades 12 or above, who have been employed for at least 3 are eligible to apply. An e-mail will be sent to all BA scientists in mid-January with details for submitting an application. All applications must be submitted to the FAR-B Fellowship, Hydrology Lab. Room 007, BARC-West, through their first line supervisor by March 3, 2000. Awards will be announced at the FARB annual meeting in April 11, 2000.

OUTREACH PROGRAM

Below are excerpts from responses sent to FAR-B by Seabrook Elementary students following their sixth-grade field trip to BARC November 3, 1999, a trip arranged by JOHN KUCHARSKI, head of the National Visitor Center, together with JEANETTE BAYLOR and JAY GREEN, information specialists with the NVC staff:

Dear Dr. Bram:

I liked the part about the super slurpee. I learned that you make plastic out of cornstarch. I also learned that you make pampers out of corn starch. I want to thank you for letting us come and learn more about agriculture. I learned a lot. For example, I learned that potato bugs don't fly even though they have wings. Also, I learned that sows stand up if you get too loud! ----Angelo Lowe

Dear Dr. Martin:

I am really interested in how bugs do things like eat plants and other things. When you showed us the bugs, I liked how some could hang upside down. I also liked how they eat bigger bugs than themselves. I thank all of you for making this field trip happen for us and I hope we can do something like it again. It helped me to think about what I can do to help keep this earth good. -----Kala Barkley

Dear Dr. Bram:

Thank you for the trip. It was fun. It was my first time ever seeing a baby cow and my first time holding a potato beatle. It was tickling my hand. When we were seeing the pigs we made a little bit of noise and they started getting excited. The mother stood up and started to bang her head on the metal bars.

-----Dwayne Henderson

Dear Mr. Dickson:

At our field trip I learned about the kind of insects they were going to show us. After the first part we saw the calfs, piglets, hogs, and

cows. Our field trip was very interesting. We saw a lot of things we didn't expect. I saw the insect called a poato bug. The field trip was so fun. We hope you invite us again. We really liked your plans. I learned a lot of things I didn't know before. Thank you.

-----Kellie Smith

Dear Dr. Taylor:

Thank you for inviting us to your building. I had fun learning about agriculture. Even though I didn't like the smell, I still had fun. I liked it when we got to open the corn. I had never before seen what it looks like inside!

-----Chéla Smith

Dear Mrs. Baylor:

Thank you for allowing us to visit the Agricultural Research Center. I learned that when you scare a cow or a pig they jump up. I learned that cows and pigs protect their babies when they are in danger. I learned that some bugs have 6 legs or 8 legs. I learned that beetles grow from very small to very large. Some pigs can be a different color. Some pigs are brown and black. Pigs, cows and chickens are afraid of humans.

-----Rayronn C. Hall

BELTSVILLE SYMPOSIUM

FAR-B is sponsoring the semi-annual Beltsville Symposium that will be held September 10-12, 2000. The title of the symposium will be "Healthy Animals 2000". The symposium will cover topics such as "Defining Healthy Animals", "Stress and Disease", "Food Safety"' Safeguarding Animal Health", and "Documenting Animal Health and Food Safety". Speakers will include ARS, APHIS, university, and industry scientists. Because the year 2000 marks the 90th anniversary of the founding of Beltsville Agricultural Research Center (BARC), there will also be a talk on the history of BARC at one of the evening programs. Please mark your calendars and plan on attending this stimulating symposium. Contacts for additional information and for registration materials are Lou Gasbarre at 301-504-8508 or lgasbarr@lpsi.barc.usda.gov and Joe Urban at 301-504-8765 or jurban@lpsi.barc.usda.gov.

NEWSLETTER ARTICLES WELCOME

If you have any information you would like to share with the membership, please send it in and we will include it in our June newsletter.

FAR-B ANNUAL MEETING
TUESDAY APRIL 11, 2000
2pm
BLDG 003, RM 20

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FAR-B NEWSLETTER

Friends of Agricultural Research - Beltsville, Inc.

P.O. Box 1061, Beltsville MD 20704-1061

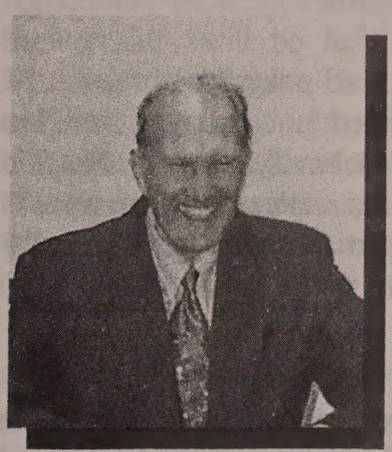
JANUARY 2000 Edition

HAPPY NEW YEAR FROM FAR-B BOARD OF DIRECTORS

From left to right

Front: Albert DeMilo, Jim Butcher, Walter Rawls

Back: Frank Longen, Mort Beroza, Ralph Bram, Philip Kearney, Bill Baliey



PRESIDENT'S MESSAGE

On behalf of the FAR-B Board of Directors, I extend all best wishes for a healthy and happy new millennium to each of you and your families.

As a result of your generous contributions to our organization, this past year has been most successful. FAR-B was active in co-sponsoring several one-day symposia and field days including: the Chesapeake Bay Day; the Beef Cattle Day; the Food and Health Symposium; and the BARC Poster Day. In cooperation with the ARS National Visitors Center, FAR-B sponsored an outreach program for local sixth grade students that featured the importance of research and the major role that agriculture plays in their lives. We also provided refreshments for visiting scientists conducting in-depth laboratory reviews at BARC and for the new employee orientation program. Through the generosity of the Faust family, FAR-B sponsored the FAR-B/Miklos Faust Summer Internship for a University of Maryland student to conduct studies with commercial strawberry cultivars. The prestigious George W. Irving Fellowship was awarded to Dr. John R. Dobrinski of the Germplasm and Gamete Physiology Laboratory. He traveled to the Roslin Institute in Edinburgh, Scotland (home of Dolly, the sheep) to conduct research leading to the production of cloned pigs. Jim Butcher has added a new dimension to our publicity efforts, writing articles about BARC and FAR-B for the print media. Al DeMilo is taking the initiative to send solicitations to selected members of the agricultural community, requesting contributions that will help in solving critical agricultural problems.

Under the leadership of Essex Finney, FAR-B provided written testimony to Congressional Budget Committees in support of the President's budget proposals for agricultural research, with special emphasis to the needs of BARC. Letters were also sent to the Maryland Congressional Delegation. We were delighted to learn that, with the support of The Honorables Paul S. Sarbanes and Barbara A.

Mikulski of the United States Senate along with The Honorable Steny H. Hoyer of the United States House of Representatives, BARC received $13 million for phase I construction of the new Human Nutrition Research Center facility. New funds for research were also designated for the GRIN program, parasitology, horticultural quality, and human nutrition. For FAR-B, the future truly looks bright. Phil Kearney is chairing a committee to examine our goals and objectives in order to make recommendations on how to assure that FAR-B is even more responsive to the needs of BARC scientists. This committee will also identify potential sources of new revenue that can be used for FAR-B projects. Preparations are already underway for FAR-B to co-sponsor the **Beltsville Symposium, Healthy Animals 2000**. Co-sponsorship of a one-day symposium, **Invasive Species**, is being planned. In addition, our year 2000 budget includes resources for: The George W. Irving Fellowship Award; the FAR-B/Miklos Faust

Summer Internship; the FAR-B Distinguished Scientist Award; two field days; the BARC Poster Day; refreshments for in-depth laboratory reviews, new employee orientations, and other special events; and the community outreach program. Of course, we will continue to provide testimony to Congressional Budget Committees and other elected officials in support of BARC research.

Your FAR-B Board of Directors meets on the second Tuesday of every month in Building 003, room 238 at 1:00 p.m. All members and potential members are cordially invited to attend these meetings and participate in the deliberations that affect the future of FAR-B. Please plan to attend the FARB annual meeting on April 11, 2000.

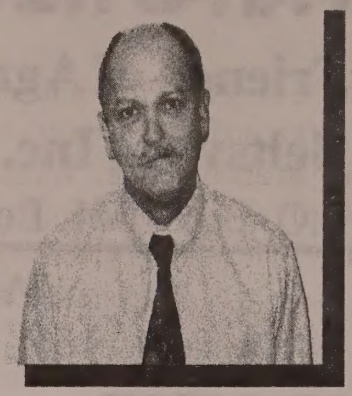
Thank you for being a friend of agricultural research.

Sincerely,

Ralph A. Bram, President

rabram@rcn.com

Associate Area Director's Message



The FY00 budget process is over and the Beltsville Area is in the process of implementing $2 million in increases. Specifically, additional funds were received for the National Germplasm Resources Laboratory ($225K), $360K for a new food safety position in the Horticultural Crops Quality Laboratory, the Biocontrol of Plant Diseases Laboratory received $120K for work on cacao, and $45K was added to the Soybean and Alfalfa Research Laboratory for work on microsatellite markers in wheat. All of these increases were in the PSI. The Parasite Biology and Epidemiology Laboratory in LPSI received an additional $360K for risk assessment in microbiological models. The Food Composition Laboratory and the Nutrient Data Laboratory of BHNRC both received an addition $225K for work on food separation/extraction methods and nutrient data collection of foods, respectively.

In addition to these program increases, $13 million was received for construction of Phase I of the new Beltsville Human Nutrition Research Center complex. We are awaiting the Departmental markups of the FY01 budget and look forward to the President's budget in early February.

By the time this message has been published the year 2000 will be well underway. In anticipation of the potential Y2K problems, the Beltsville Area prepared a Day One Plan to cover any contingency which may occur when the year 2000 arrives. Many individuals and much time was spent on developing the Day One Plan. The benefit beyond being prepared for Day One difficulties is that it will also serve

as an emergency plan for any prolonged outage or emergency.

Work will begin on the new roof for Building 004 in January 2000 and we expect to reoccupy the building in about a year. We are also looking forward to the initiation of construction of a new animal facility which is a collaboration with the University of Maryland, a new feed mill and a biocontrol greenhouse during early 2000.

A number of outreach activities are already being planned for 2000. On January 13 BARC will host a Biodiesel Seminar to provide information to other federal, state and private agencies on the benefits of using Biodiesel as a replacement for diesel fuel. The BARC Biodiesel Demonstration has been successfully going on since August 1999. The 90th anniversary of animal research at BARC will be the theme of this years BARC Symposium, Healthy Animals 2000. A one-day Invasive Species Symposium is planned for February 15. This symposium will highlight current research in the Plant Sciences Institute dealing with invasive weeds, fungi, nematodes and insects. The annual winter Sustainable Agriculture meeting, Farming for Profit and Stewardship, will be held in Hagerstown, Maryland in March. The meeting will be cosponsored by Future Harvest and the University of Maryland Extension Service. We appreciate the continued support of FAR-B in planning and conducting many of these outreach activities.

One of the goals of the Area Office for 2000 is to expand and enhance out outreach via the world wide web. As a first step in this direction is the creation of a new diversity web page which has been added to the BARC web page. The diversity page can be reached by going to http://www.ba.ars.usda.gov.

Lastly, Dr. Barbara Leonhardt, Director of the Plant Sciences Institute, retired from ARS at the end of 1999. Barbara did an outstanding job in leading the Institute for over four years. Her presence will be sorely missed at BARC.

BARC DELIVERS LOCAL. NATIONAL ECONOMIC RETURNS

One would be hard pressed to find a Beltsville resident who doesn't find some joy in living next door to the big agricultural research facility in our community. Officially, it's called the Beltsville Agricultural Research Center (BARC), and it sprawls for over 6,700 acres on either side of Route 1.

Among other good things, BARC rewards us with bucolic vistas of rolling green fields, pastures filled with contented black-and-white cows, natural forest lands--all signaling welcome solace for the harried suburban spirit. Those rewards alone might be reason enough to celebrate having the big friendly neighbor in our town.

Solace for the suburbanite aside, one might fairly inquire about other, more earthly rewards. What about BARC's economic impact for instance? What about employment? What has BARC research done to reward agriculture? Consumers?

In a recent informal summary, BARC director Dr. Phyllis Johnson addressed questions like these. Here are highlights of what she has to say about the economic returns that Beltsville and the surrounding larger community -- indeed the nation -- reap from BARC.

Local Economic Impact:

The Beltsville Area's annual budget (includes the National Arboretum) pumps $110 million into the local economy. The Beltsville Area pays out $62 million per year in salary costs alone, which is conservatively estimated to generate over $280 million worth of economic activity for the general community.

Most of the 1,300 employees live in Prince George's County. Some commute from other nearby Maryland counties or the District of Columbia. A few hardy souls commute every day from Virginia. A meticulous observer might even spot a rare Pennsylvania car among the local cars parked near one of BARC's 450 buildings.

BARC annually spends $10-20 million locally on supplies and equipment. Annual construction contracts have run $2-4 million in recent years. Moreover, BARC received a special appropriation of $13 million this year for new construction and expansion of the Beltsville Human Nutrition Research Center.

National Economic Impact:

Topics as esoteric as this one can easily bog down in disciplinary jargon. Many economists have measured the national impact of publicly supported agricultural research in economic terms. Dr. Johnson likes to cite highly regarded economists W.E. Huffman and R.E. Evenson, who estimate the annual return on agricultural research to be in the range of 135-170 percent. Virginia Tech's George W. Norton puts it this way: "knowledge may take several years to produce, then pay off for a long period of time... A recent analysis found roughly a $5 return, spread over a 15- to 20-year period, for each dollar invested in agricultural research."

Selected National Research Accomplishments:

Another, perhaps more expressive way to affirm BARC's national impacts at century's end is to scroll down a list of national accomplishments. Here, selected by decade, is Dr. Johnson's sample of national accomplishments:

1910: ***BARC established with the beginning of dairy cattle research.*** Today, the ***National Cooperative Herd Improvement Program*** evaluates the genetic merit of dairy cattle worldwide; ***recently, the program has reduced cost of milk to consumers by $60 million per year.***

20s and 30s: ***Released first landscape roses, several still in the marketplace. Released the first pest-resistant potato varieties.***

40s: ***Developed soilless plant growing media*—including widely used *vermiculite*; *discovered DEET*—**the principal ingredient in insect repellents that repels deer ticks, mosquitoes, chiggers and fleas. ***Today*, DEET is the *active ingredient in over 35 commercial repellents. From WWII through Operation Desert Storm and Somalia, DEET protected U.S. soldiers*** from malaria-bearing mosquitoes and other disease-carrying pests.

50s: Developed an ***artificial attractant for the Mediterranean fruit fly***—used worldwide for monitoring; ***defined energy requirements for lactating dairy cows***—leading to a practical feeding system recommended by the National Academy of Science to dairy farmers nationwide; ***saved the Great Lakes strawberry industry*** by releasing strawberry varieties resistant to red stele, a root-rotting fungus; pioneered research on plant responses to light quality and day length—culminating in the ***discovery of phytochrome, leading to major progress in understanding how plants biosynthesize complex carbohydrates.***

60s: ***Did groundwork leading to methoprene—the most widely used household insecticide;*** contributed to the ***Green Revolution***—a turning point in agriculture that drastically reduced world hunger; identified and ***supplied disease resistant wheat to***

plant breeding centers around the world; identified methionine as the precursor of ethylene——a plant hormone promoting fruit ripening, impacting agriculture and biology worldwide.

70s: ***Identified a chemical insect attractant for the gypsy moth***——leading to traps for this forest-destroying pest; ***developed poinsettias for the commercial floral and nursery trade; developed chemicals to prolong fruit shelf-life and storage-life; released the potato variety Atlantic——still the number one potato chipping variety grown in the United States; discovered plant viroids——a class of plant-disease causing particles 80 times smaller than viruses; developed*** **a practical** ***test for the presence of viroids in potatoes.*** In the mid-1990s, ***this test saved the entire $30 million Maine seed potato industry.***

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The opening section draws heavily on long-term Beltsville research accomplishments and economic impacts selected by the director. The final section focuses on current research priorities. Besides the chairman, the focus group includes: Ralph Bram, Walter Rawls, Phil Kearney, Essex Finney, and Terry Kinney.

FAR-B/MIKLOS FAUST SUMMER INTERN PROGRAM

In our last Newsletter we reported that we had received a generous grant from Dr. Maria A. Faust, widow of the late Dr. Miklos Faust, with which we established the FAR-B/Miklos Faust Summer Intern Program as a tribute to "Mike". Last year's recipient of the internship, Miss Courtney Robinson, who was assigned to the Fruit Laboratory, gave a presentation of her summer project at a ceremony held in late August. Dr. Maria Faust presented Miss Robinson with a Certificate of Appreciation at that time. Miss Robinson's project assignment involved determining optimum conditions for high frequency Agrobacterium-related gene transfer into commercially important cultivars of strawberry. We are pleased that with the funds remaining in the grant we are sponsoring the FAR-B/Miklos Faust Summer Intern Program for another year. The intern for the year 2000 will be assigned to the Vegetable Laboratory, another of the laboratories with which "Mike's" career was involved. We are working with Dr. Autar Mattoo in developing a suitable assignment for the intern and in locating candidates from which a selection will be made. We will report further on this program in a subsequent Newsletter.

NEWS FROM MEMBERS

From Terry Kinney

FAR-B is a meaningful and influential group and I am delighted to have been accepted as a member. Although I am geographically distant from BARC. I hope to be able to contribute in some ways and to attend meetings occasionally.

When I retired in June 1988 from a most satisfying career with ARS, Carol and I moved to York, South Carolina and immediately became active in volunteer work. For several years we counseled at halfway houses for drug addicts. It was a happy-sad experience, but we find it rewarding. We built a modest home on three acres of land and had fun with vegetable gardens, fruit trees, and berries. After getting settled we added about 16 hours a week of volunteer work at Gaston Memorial Hospital to our activities. I also tutored and counseled at York Place, a home for abused preteens. That too was rewarding but I shed many tears. It's amazing how many abused boys and girls there are that we know about. Carol is an ordained preacher and we taught at a number of churches in the Carolinas and Tennessee for several years.

In 1995 I had two heart attacks and had to have by-pass surgery. The doctors advised me to slow down a bit and I did find myself tiring easily. So, we decided to sell our property and try apartment life. We found a lovely apartment with a pool and exercise room in Gastonia, North Carolina. We began to pick up our volunteer work again. However, walking out the front door and being in a hallway with elevators and stairs soon became less than exciting. We looked again and finally built a home on a small naturalized lot in Rock Hill, South Carolina. Within months we found that Carol had fibromyalgia and Chronic Lymphocytic Leukenia (CLL). Neither is necessarily life threatening, but quite often debilitating. We finally agreed to move once more to get away from the sloping lot and stairs.

A patio home back in Gastonia North Carolina is our final home. It is a separate home with a small flat lot that is easily maintained. It has a two car garage so I can have a work bench and we can park our "good car" inside. We are doing fine and ready to move back into volunteer work. So between

that and our ten grandchildren, we are kept busy. Occasionally I hear on TV, in the press, or the internet about some ARS research or about a particular scientist and I feel a great pride in having been a member of such a dynamic organization.

2000 GEORGE W. IRVING FELLOWSHIP

FAR-B is seeking nominations for the 2000 George W. Irving Fellowship Award. The program provides opportunities for research or educational programs away from Beltsville for periods up to one year. The award will cover up to $10,000 in travel and associated costs. Research scientists (Category 1 or 4) in grade 13 or above and administrative personnel in grades 12 or above, who have been employed for at least 3 are eligible to apply. An e-mail will be sent to all BA scientists in mid-January with details for submitting an application. All applications must be submitted to the FAR-B Fellowship, Hydrology Lab. Room 007, BARC-West, through their first line supervisor by March 3, 2000. Awards will be announced at the FARB annual meeting in April 11, 2000.

OUTREACH PROGRAM

Below are excerpts from responses sent to FAR-B by Seabrook Elementary students following their sixth-grade field trip to BARC November 3, 1999, a trip arranged by JOHN KUCHARSKI, head of the National Visitor

Center, together with JEANETTE BAYLOR and JAY GREEN, information specialists with the NVC staff:

Dear Dr. Bram:

I liked the part about the super slurpee. I learned that you make plastic out of cornstarch. I also learned that you make pampers out of corn starch. I want to thank you for letting us come and learn more about

agriculture. I learned a lot. For example, I learned that potato bugs don't fly even though they have wings. Also, I learned that sows stand up if you get too loud! ----Angelo Lowe

Dear Dr. Martin:

I am really interested in how bugs do things like eat plants and other things. When you showed us the bugs, I liked how some could hang upside down. I also liked how they eat bigger bugs than themselves. I thank all of you for making this field trip happen for us and I hope we can do something like it again. It helped me to think about what I can do to help keep this earth good. -----Kala Barkley

Dear Dr. Bram:

Thank you for the trip. It was fun. It was my first time ever seeing a baby cow and my first time holding a potato beatle. It was tickling my hand. When we were seeing the pigs we made a little bit of noise and they started getting excited. The mother stood up and started to bang her head on the metal bars.

-----Dwayne Henderson

Dear Mr. Dickson:

At our field trip I learned about the kind of insects they were going to show us. After the first part we saw the calfs, piglets, hogs, and

cows. Our field trip was very interesting. We saw a lot of things we didn't expect. I saw the insect called a poato bug. The field trip was so fun. We hope you invite us again. We really liked your plans. I learned a lot of things I didn't know before. Thank you.

-----Kellie Smith

Dear Dr. Taylor:

Thank you for inviting us to your building. I had fun learning about agriculture. Even though I didn't like the smell, I still had fun. I liked it when we got to open the corn. I had never before seen what it looks like inside!

-----Chéla Smith

Dear Mrs. Baylor:

Thank you for allowing us to visit the Agricultural Research Center. I learned that when you scare a cow or a pig they jump up. I learned that cows and pigs protect their babies when they are in danger. I learned that some bugs have 6 legs or 8 legs. I learned that beetles grow from very small to very large. Some pigs can be a different color. Some pigs are brown and black. Pigs, cows and chickens are afraid of humans.

-----Rayronn C. Hall

BELTSVILLE SYMPOSIUM

FAR-B is sponsoring the semi-annual Beltsville Symposium that will be held September 10-12, 2000. The title of the symposium will be "Healthy Animals 2000". The symposium will cover topics such as "Defining Healthy Animals", "Stress and Disease", "Food Safety"' Safeguarding Animal Health", and "Documenting Animal Health and Food Safety". Speakers will include ARS, APHIS, university, and industry scientists. Because the year 2000 marks the 90th anniversary of the founding of Beltsville Agricultural Research Center (BARC), there will also be a talk on the history of BARC at one of the evening programs. Please mark your calendars and plan on attending this stimulating symposium. Contacts for additional information and for registration materials are Lou Gasbarre at 301-504-8508 or lgasbarr@lpsi.barc.usda.gov and Joe Urban at 301-504-8765 or jurban@lpsi.barc.usda.gov.

NEWSLETTER ARTICLES WELCOME

If you have any information you would like to share with the membership, please send it in and we will include it in our June newsletter.

FAR-B ANNUAL MEETING
TUESDAY APRIL 11, 2000
2pm
BLDG 003, RM 20

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President's Message

Dear Friends and Colleagues,

I hope this newsletter finds you well, warm, eager to face the New Year. I want to begin by providing an update on some recent activities the FAR-B Board has undertaken since Darwin "snookered" me into agreeing to accept candidacy for this office.

First of all, FAR-B has a new web page http://www.far-b.org that provides several advantages over the one previously found on the BARC home page. When you take a few minutes to check it out you will find that it now provides the opportunity to pay your dues on line with a credit card. This capability will assist FAR-B considerably in the months ahead to collect registration fees for workshops, conferences and symposia that BARC scientists periodically host, and to receive payments for any FAR-B fund-raising event, such as the poinsettia sale.

The new web page also has a section devoted to Donations and Bequests. There you will find information on how FAR-B members and others can make tax-deductible donations to FAR-B, or alternatively, establish a "Donor Advised Fund" to make bequests or tax-deductible donations to a specific research activity at BARC. If you don't have access to the internet let me know and I will mail this information to you.

I want to also highlight FAR-B's major community outreach activity of 2008 that resulted in FAR-B receiving our fourth **President's Volunteer Service Award.** This was our second Gold Medal Award presented by the President's Council on Service and Civic Participation in recognition of FAR-B's three-day Science Enrichment Program on "exploring Environmental Science," which was presented to all students of the Beltsville Elementary School. This huge effort was lead once again by Dianne Odland with assistance of FAR-B members, and BARC, NAL, and ARS Information Staff employee volunteers.

Another major FAR-B activity was the funding of seven travel grants to BARC scientists that permitted them to present their research at national or international scientific meetings. These grants provided funding for travel that budget constraints in their laboratory would not have permitted.

Other FAR-B sponsored or cosponsored activities for BARC employees included: the BARC Poster Day competition for Student Interns from Eleanor Roosevelt High School and several other high schools in Prince George's County; three Distinguished Lecture presentations to BARC employees; the "Take Your Child to Work Day Program"; the "Administrative Professional's Day Training Program"; the "Leaders of Tomorrow – End of Summer Student Hire Program"; hosting of the Meyerhoff Scholars Summer Bridge Program; and the Hispanic Heritage Month - Special Emphasis Program.

From the beginning one of FAR-B's most important functions has been to assist BARC scientists in hosting of various research symposia, workshops and conferences. During this past year FAR-B assisted BARC scientists in hosting of two North Central Regional Committee meetings, one North Eastern Regional Committee meeting, and a

national conference on "The Future of Dairy Cattle Genetics Research." The latter was organized by the Animal Improvement Programs Laboratory to celebrate the 100th year of the dairy cattle improvement program in the USDA.

One of the tasks we have ahead this coming year is to assist in the planning and securing funds for BARC's Centennial celebration in 2010. Roger Lawson is FAR-B's representative on the BARC Centennial Planning Committee, and as plans are firmed up, we will attempt to keep you informed via http://www.far-b.org and ***The FAR-B News*** of the various events that are scheduled so you might attend one or more of these BARC Centennial events.

Vernon Pursel, *President*

Friends of Agricultural Research-Beltsville, Inc.
PO Box 1061, Beltsville, MD 20704-1061

— Dedicated to promoting the research and education programs of the Henry A. Wallace Beltsville Agricultural Research Center, Beltsville, MD —

FAR-B NEWS

June 2000 *Editor: Jim Butcher*

Breaking News: FAR-B Approved for CFC Donations

It's official! As we go to press, the Combined Federal Campaign of the National Capital Area has officially notified FAR-B that our organization is approved to receive CFC donations during the 2000 campaign. We now are eligible to receive donations to further our research, educational, and outreach activities at the Beltsville Agricultural Research Center. CFC will list FAR-B in the "Local Agencies" section of the CFC catalog. Our "Designation Number" for the 2000 campaign is *7991*—an important number to remember.

FAR-B is indebted to Goals and Objectives Chair Phil Kearney for spearheading the drive to win CFC eligibility for our organization. "We had to submit substantial documentation," Phil said. "Some of the things that made us look good were a low 3.1% overhead, an all- volunteer organization that pays no salaries, and a good record of accountability on delivering programs with contributed funds. In a sense, our selection was based on the programs we support, but also on the outstanding reputation that BARC enjoys in the greater Washington community. Our efforts to educate the local community by our outreach and focus group programs are paying off."

Reacting to this huge achievement, FAR-B President Ralph Bram noted, "We have an unprecedented opportunity to expand our programs to our friends at BARC and our neighbors in the community. We hope our friends and neighbors will support us in mid-September when the CFC campaign begins."

President's Message

Dear Fellow Members,

Due to your generosity and support, we are continuing to supplement and enhance the scientific and educational programs of the newly renamed Henry A. Wallace Beltsville Agricultural Research Center. As you will see in the following pages, FAR-B is moving ahead through both established activities and new initiatives.

There have been a couple of recent changes on your Board of Directors. Because of the press of research and administrative duties, Dr. Walter Rawls will no longer continue in the role of Executive Secretary. The Board certainly appreciates the outstanding contributions Walter has made to our organization throughout the four years of his dedicated service.

Board of Directors

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rabram@rcn.com
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Special Advisor: Essex Finney
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ademilo@asrr.arsusda.gov
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Outreach: Charles Dickson
(c.h.dickson@worldnet.att.net)
Publicity: Jim Butcher
(jim@bellatlantic.net)

Beltsville Area

Area Director: Phyllis Johnson
Associate AD: Ron Korcak
AD's Representative: Manya Stoetzel
Nat'l Visitor Center: John Kucharski

FAR-B News

Editor: Jim Butcher
Associate Editor: Charles Dickson

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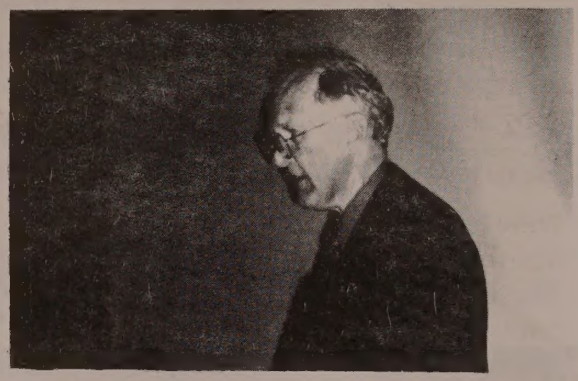
While saying goodbye, we welcome Dr. Manya Stoetzel as Area Director's Representative to the Board. Dr. Stoetzel, a Research Scientist with the Systematic Entomology Laboratory, is



President Bram at the Annual Meeting

an Associate Member and is extremely supportive of the goals and objectives of FAR-B. Welcome, Manya.

Charles "Hank" Dickson was elected by acclamation at our Annual Meeting to fill a vacant seat on the Board. Hank has been a long-time member of FAR-B. He initiated and has served as Chair of our Outreach Program for the past three years. He was also a member of the Focus Group this year, helping to reproduce and collate our Congressional testimony as well as hand-deliver the documents to Congressional offices. Hank has also agreed to assume secretarial responsibilities on the Board. I know you join me in extending a warm welcome to our newest Board member.

Our Annual Meeting this year exceeded all expectations. Since the guest speaker of the afternoon was Under Secretary of Agriculture for Research, Education, and Economics, Dr. I. Miley Gonzalez, we invited all Beltsville employees to attend. Over 200 persons filled the auditorium of Building 003. In his address, Dr. Gonzalez praised the work of FAR-B and encouraged the organization to continue in its support of the research and education programs of the Beltsville Agricultural Research Center. He made special mention of the outreach programs to local communities and to the public at large. Dr. Gonzalez also had words of

high acclaim for the quality of research currently being conducted and recognized BARC as the world's largest, best known agricultural research center.

New members are the life blood of any volunteer organization, and I would like to extend a special welcome to all those who joined our ranks this year. I would encourage all members to please make a special effort to recruit other new members from among your friends and colleagues. Your Board of Directors is continually looking for ways to enlarge our financial base. Should you have any ideas in this regard, please contact any of your Board members or attend one of our monthly Board meetings, which are held in Building 003 at 1:00 p.m. on the second Tuesday of the month (except for July and August).

Thank you for being a friend of agricultural research.

Sincerely,

Ralph A. Bram, Ph.D.

Associate Area Director's Message

On June 7, 2000 the Beltsville Agricultural Research Center was officially renamed the Henry A. Wallace Beltsville Agricultural Research Center. The ceremony was marked by Secretary of Agriculture Dan Glickman. Henry A. Wallace was Secretary of Agriculture and Vice President of the United States and was known for his pioneering research on hybrid corn.

The past six months have been a busy period for the Area Office. All of the budgetary increases from the FY00 budget have been implemented and we await the final version of the FY01 budget. As of this writing (mid-June) what we thought would be a quick budget cycle has turned out to be quite the opposite. Although both the House and Senate have approved appropriations bills, we are still awaiting the House/Senate conference committee meeting to iron out their differences. This process may not happen until late summer/early fall.

The Area Office has been working to enhance our visibility and interaction with local and state economic development corporations as well as other federal and private research institutions in the area. The primary focus is to identify avenues to get some of our research products into the hands of private firms that can further develop and market these products. As part of this process we are looking forward to our second year of VIP tours of BARC. This year we have invited local and state officials from the private and public sectors to either a general VIP tour (June 20th) or a more specialized VIP tour on biotechnology (June 29th).

The U.S. National Arboretum has had two significant events in the past two weeks. The long awaited Big Bugs exhibit officially opened on June 2. The Big Bugs are the creation of artist David Rodgers and are made of natural products. The USNA is an apt setting for this exhibit which runs through the end of October. Be sure to check it out! The annual Cookout fund raiser put on by the Friends of the National Arboretum (FONA) celebrated the agriculture of the State of Florida. Among the distinguished guests were Secretary Glickman and members of the Florida Congressional delegation.

The annual BARC Public Day, held on Saturday June 3, was a resounding success! Over 6,000 visitors viewed the exhibits highlighting the research that we perform here at BARC. In addition to the laboratory and group

exhibits a separate tent displayed the history of BARC as part of our 90th anniversary year celebration. Posters depicted research accomplishments and facilities changes by decade over the 1900's. Deputy Secretary of Agriculture Richard Rominger spent two hours viewing the exhibits. The success of this event goes to all those employees who spent countless hours preparing for the event and then relating the research that goes on at BARC to the visitors.

Plans are being finalized for our other annual event, Sustainable Agriculture Field Day. The event, scheduled for August 10th, will highlight "Nutrition and Food Safety: From Farmer to Consumer." The sustainable agriculture initiative at BARC has grown over the years and now over 60 scientists are involved in some component of the program.

We will break ground in mid-July on a new University of Maryland / BARC facility. The UMD-BARC Animal Biotechnology Research Center will be located on BARC-East near the Bldg-200 area. Plans are also being made for the initiation of construction on the first of two new buildings for the Beltsville Human Nutrition Research Center. Two "wings" will be added on to Bldg-307 and will provide much needed new space for our human nutrition research programs.

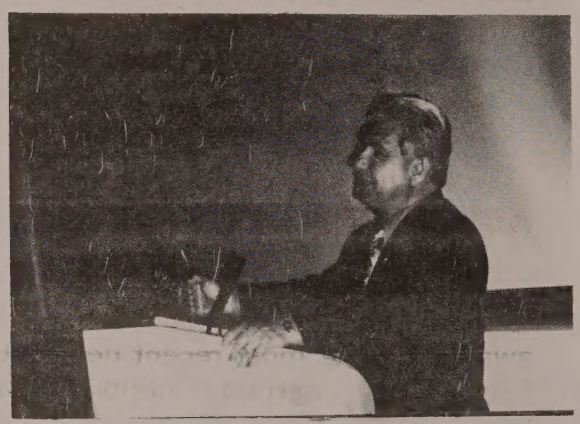
As summer approaches we wish all FAR-B members enjoyable and safe summer vacation travels. Your continued support and assistance in promoting the activities of BARC are much appreciated.

Under Secretary Addresses Annual Meeting

Our May 11 annual meeting may have set a new attendance record. Though no one has kept annual meeting attendance records over the years, it's a fair guess that this year's audience was among the largest ever. Estimates placed the attendance at well over 200 members and guests.

Our principal speaker was USDA Under Secretary for Research, Education, and Economics I. Miley Gonzales. The former University of Arizona educator and extension administrator clearly warmed to the opportunity to speak to the FAR-B membership and guests.

In wide-ranging remarks, Secretary Gonzales emphasized cooperation between the federal research system and the private sector, and strengthening relationships among federal agencies. He talked a lot about outreach, about training the next generation of scientists for interdisciplinary research, and about technology transfer.



Under Secretary Gonzales

One priority, he said, is marketing the department's science and education agenda. He talks frequently with the Office of Management and Budget and to the Congress. He noted that he now has the directors of the National Aeronautics and Space Administration, the National Institute of Standards and Technology, and the National Science Foundation talking about agricultural science and education.

Saving the best for last, Secretary Gonzales commended BARC as the world's largest, best known agricultural research center. Then, in a surprise for BARC Director Phyllis Johnson, Secretary Gonzales said that he had invited Latin American Directors of Agriculture to meet this year at Beltsville. She responded to the effect, "we'll handle it."

Membership

Our FAR-B membership continues at around the 200 level -- 185 to be exact. Of these, 80 are employees at BARC and are classified as Associate Members who pay dues of $10 annually; 85 are Personal Members and are mostly retirees whose dues are $20 annually; 18 are Patrons, also mostly retirees, who pay dues of $100 annually; and two are Sustaining Members who pay dues of $500 annually. We are grateful for the continued support of these members -- most of whom have renewed their membership for the year 2000.

FAR-B welcomes the following members who have joined or upgraded their membership this year:

Mr. and Mrs. Chris Strasser, Patron
Dr. James H. Elgin, Jr., Personal
Dr. Lawrence A. Johnson, Personal
Dr. Terry B. Kinney, Personal
Dr. James C. Smith, Personal
Dr. Deborah Fravel, Associate
Dr. Stan C. Hokanson, Associate
Ms. Pamela C. Scalco, Associate

We greatly appreciate all of our supporters. If you haven't renewed for year 2000, please submit your dues as soon as possible.

Board of Directors: Clockwise from left rear, Al DeMilo, Phil Kearney, Ralph Bram, Hank Dickson, Jim Butcher, Frank Longen, and Mort Beroza.

Regrets

FAR-B salutes and bids farewell to three Charter Members who passed away since our most recent newsletter. Each had earned national and international scientific acclaim. Each leaves invaluable contributions to American and world agriculture. Each forged a lasting, indelible legacy.

Dr. Edward F. Knipling--pioneered pesticide-free ways to protect livestock and crops from the devastating effects of such insects as screwworm flies. A former director of the ARS entomology research division,
Dr. Knipling was best known for helping develop the sterile insect technique. He and colleague R. C. Bushland used radiation to sterilize male screwworm flies, which were then released into the wild to mate with wild females. The technique has been credited with eradicating the screwworm fly in North America and saving the livestock industry millions of dollars. The technique also has been adapted in California and Japan to eradicate fruit flies and in Africa to control the tsetse fly.

In 1995, Dr. Knipling received the prestigious Japan Prize from the Science and Technology Foundation of Japan. He was honored at a state dinner hosted by the Emperor. Just last year, Progressive Farmer magazine named Bushland and Knipling among 21 scientific pioneers who had most shaped American

agriculture over the past 100 years. Other awards included the National Medal of Science, the President's Award for Distinguished Federal Civilian Service, and the USDA Distinguished Service Award.

Dr. Herbert O. Hetzer--distinguished swine breeding researcher. Dr. Hetzer spent his entire 36-year federal career at the Beltsville Agricultural Research Center. Born in Hamburg, Germany, he came to the United States in 1928, became a naturalized citizen in 1935. Dr. Hetzer began his Federal career in 1937 with the former Bureau of Animal Industry, where he conducted swine breeding research. Highly regarded in the scientific community, Dr. Hetzer authored or co-authored scores of manuscripts during his long, successful career.

Dr. Howard E. Heggestad--pioneered air pollution research. Dr. Howard Heggestad was among the first to show that tropospheric ozone leads to plant damage and is a factor in plant injuries. A noted authority on how air pollution affects plants, Dr. Heggestad is credited with developing several disease-resistant tobacco varieties. Honors and awards include: the Distinguished Scientific Research Award from the Cigar Manufacturers Association, the Environmental Quality Research Award from the American Society of Horticultural, and the Award for Research Excellence from the Environmental Pollution Agency.

FAR-B Miklos Faust Summer Intern Award

FAR-B is pleased to announce that Mehmet E. Yilmazas is the Year-2000 winner of the FAR-B Miklos Faust Summer Intern Award. A sophomore majoring in molecular biology at the University of Maryland, Mr. Yilmazas will work with Dr. Autar Mattoo, Research Leader, Vegetable Laboratory, Plant Sciences Institute. He will concentrate on a selected project in the broad area of improving plant nutrition, shelf life, and stress tolerance. Made possible by a generous grant by Dr. Maria Faust, the Faust award honors the late world-renowned horticultural scientist Dr. Miklos "Mike" Faust for his many lasting contributions.

Focus Group

The focus group hand-delivered FAR-B's outside witness testimony to the House and Senate Appropriations Subcommittee staff offices for agriculture and related agencies. Also, the focus group hand-delivered FAR-B's witness testimony to each member of the House and Senate Subcommittees and to the Maryland Congressional delegation. Our strategy was essentially three-fold: 1. create a succinct, emphatic document stating the high-rate of return on taxpayer dollars invested in agricultural research; 2. focus Congressional attention on targeted Beltsville research priorities FAR-B had selected in consultation with the Beltsville Area; 3. maximize Congressional interest by hand-delivering our testimony as the House Subcommittee was preparing to consider the Administration's FY-2001 budget. The FAR-B targeted research priorities: Invasive Species, the Human Nutrition Research Initiative, and Modernization of the Human Nutrition Research Center, Phase II.

Far-B George W. Irving Fellowship Award

FAR-B is pleased to announce that Dr. Ali Sadeghi, Environmental Chemistry Laboratory, Natural Resources Institute, is the winner of the Year-2000 George W. Irving Fellowship Award.

Named in honor of former ARS Administrator Dr. George W. Irving, the award contributes up to $10,000 toward a research or education program at an accredited domestic or foreign educational or research institution. Dr. Sadeghi -- an authority on basic and applied soil physical properties, water movement, and the fate of agricultural chemicals -- will spend 3-months in residence at the Blackland Research Center, Temple, Texas. In 1998, he completed at 4-month assignment with the Office of Risk Assessment and Cost Benefit Analysis, a part of USDA 's Economic Research Service. At the Temple location -- shared by ARS and Texas A&M University -- Dr. Sadeghi will concentrate on using large-scale GIS modeling to evaluate environmental practices.

Financial Report

FAR-B's financial condition is healthy and on firm ground for FY 2000 and, as we see it, well into the new century. The FY 2000 Board-approved budget of $18,875, although appreciably greater than that for FY 1999 ($10,433), is expected to be covered from a combination of revenues generated this fiscal year and FAR-B's account reserves. To conduct its everyday business in support of its missions, FAR-B maintains four accounts in Crestar Bank and two equity accounts. A noteworthy merger occurred this spring this summer between Crestar Bank and Sun Trust Bank. While Crestar underwent a name change, little change, from a financial perspective, is expected. Thus, for the foreseeable future, FAR-B plans to continue its business with this institution.

Operation Outreach

Three years ago, FAR-B launched "operation outreach" for elementary and secondary schools. Our three-fold goal is to deliver educational outreach, showcase BARC, and support science-oriented activities for students and teachers.

We started with Seabrook Elementary School, located near BARC's eastern border. Bursting with students, it consistently posts daily attendance near 99 percent.

This spring FAR-B and OPEDA joined forces to inaugurate the first ever "FAR-B-OPEDA Invitational" for high schools students. Students were invited to demonstrate science projects and talk with BARC professionals and others about scientific interests and potential careers.

Outreach Chairman Charles "Hank" Dickson said that this first Invitational went well though he hopes to generate more student participation next year. Hank expressed gratitude for excellent support from BARC and FAR-B Board members Phil Kearney, Mort Beroza, Essex Finney, and Al DeMilo. OPEDA President Holly Hayes Hambley and AD Representative Manya Stoetzel were special too," says Hank.

FAR-B hopes to build on and improve these rewarding activities. The reasons are varied and plenty. Writers could pen a thousand lines of explanation. Yet no one is likely to frame outreach in more poignant terms than did 11-

year old Kala Barkley of Seabrook Elementary in a note to Hank Dickson:

I thank all of you for making this field trip happen for us, and I hope we can do something like it again. It helped me to think about what I can do to help keep this earth good

Beltsville Symposium- Healthy Animals 2000 September 10-12, 2000

FAR/B is pleased to co-sponsor yet another Beltsville Symposium, this one with the intriguing title "Healthy Animals 2000." Symposium Co-chairs Louis Gasbarre and Joseph Urban, Livestock and Poultry Science Institute, have organized a magnificent program for scientists, producers, commodity clients, and consultants and managers who have an interest in livestock and poultry health and health-related issues.

In the Co-chairs' own words: This Symposium will provide an opportunity to hear and communicate with a collection of internationally recognized academic, government and industry experts that will present information on the topics of defining healthy animals, food safety, stress and disease, safeguarding animal health and documentation of animal health and food safety. Poster sessions will complement the invited presentations and will be part of a Symposium Proceedings published as a special supplement in Preventive Veterinary Medicine.

For details, please contact either of the co-chairs or check the website *http://www.barc.usda.gov/fmod/symposium*

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— Dedicated to promoting the research and education programs of the Henry A. Wallace Beltsville Agricultural Research Center, Beltsville, MD —

THE FAR-B NEWS

January 2001 *Editor: Jim Butcher*

President's Message

Dear Friends and Colleagues,

On behalf of your FAR-B Board of Directors, I extend to you and yours all best wishes for the year 2001. Backed by your continuing generosity, FAR-B plans to move into the new millennium with one major goal in mind: promote and support the research and educational programs of the Henry A. Wallace Beltsville Agricultural Research Center. Major FAR-B programs and activities include: the George W. Irving Fellowship Program; the FAR-B Miklos Faust Summer Intern Award; field days and scientific meetings; in-depth reviews at BARC laboratories; special ceremonies and other events within office of the Area Director; outreach programs for local schools in cooperation with the ARS National Visitor Center; and educational programs, including Congressional testimony, to inform elected officials of the important needs and achievements at Beltsville.

The Beltsville Symposium - Healthy Animals 2000 - was one of the highlights of a very successful year. During this symposium, FAR-B presented Distinguished Scientist Awards to two of BARC's outstanding research scientists. One, Dr. J. Ralph Lichtenfels, is a world authority on the identification, taxonomy, and classification of parasitic nematodes of veterinary and medical importance.

Special Announcement
FAR-B Annual Meeting,
2:00 p.m., May 8, 2001, at BARC.
Agenda To Be Announced.
Members and Guests Cordially Invited.

As Curator of the U.S. National Parasite Collection, Dr. Lichtenfels has been instrumental in developing and disseminating information and databases of critical importance to the field of veterinary parasitology. The other, Dr. J. P. Dubey, is an internationally recognized veterinary protozoologist who has made outstanding contributions to our understanding of the role of cats in the transmission of toxoplasmosis, the life cycle of neosporosis of dogs, and the cause of protozoal myeloencephalitis in horses. Congratulations to both from FAR-B.

We will make a concerted effort this year to increase FAR-B membership. To this end, the Board of Directors has declared 2001 an open season. To encourage participation in FAR-B, anyone who joins our ranks during the year will not be required to pay dues for the first year of their membership. Other incentives are being considered by the board. All FAR-B Personal Members and Patrons receive a complementary subscription to *Agricultural Research* magazine. Since we are a nonprofit organization,

membership dues and contributions are tax deductible. So that you might help us to broaden our membership base, enclosed is a copy of the latest FAR-B brochure. Please pass this on to a non-member and encourage him or her to become a friend of agricultural research. If you prefer, you may forward the potential members' names and addresses to FAR-B, and we will send them a personal invitation. Remember, FAR-B is an all volunteer organization. Our extremely low administrative expense ratio allows us to commit 97 cents of every FAR-B dollar to support the BARC mission.

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As always, everyone is welcome to attend our Board of Directors meetings, which are normally held in Building 003 at 1:00 p.m. on the second Tuesday of the month (except July and August). Please join us to participate in discussions of the various issues and to bring new ideas to our organization.

Thank you for being a friend of agricultural research and for your generous support.

Sincerely,

Ralph A. Bram, Ph.D.

Associate Area Director's Message

In November 2000 a major reorganization of the Beltsville Area was announced. The reorganization was planned to better aggregate and highlight important areas of research. The number of research institutes was reduced from four to three: the Natural Resources Institute was dissolved. The expanded Livestock and Poultry Sciences Institute was renamed the Animal and Natural Resources Institute. Several management units were realigned, some new units were created, some were dissolved and others were only changed in number of staff and or name. Details of the reorganization can be found at the Beltsville Area website: www.ba.ars.usda.gov. Also on the website be sure to view 90 years of research and change at BARC. The BARC History Committee has performed an outstanding job in assembling this historical record as part of our 90th year celebration.

Board of Directors

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Outreach: Charles Dickson
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Beltsville Area

Area Director: Phyllis Johnson
Associate AD: Ron Korcak
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Nat'l Visitors Center: John Kucharski

The construction of the new Human Nutrition Research complex is further along owing to an additional $13 million facilities increase this year. With this additional allocation the two new 'wings' on Bldg-307 are funded. Ground breaking for construction should be held this spring. Work continues on the new greenhouse containment facility being added onto the Range 1 greenhouse at BARC-West, and the renovation of Bldg-004 is due to be completed by late summer. The primary tenant in Bldg-004 will be the Molecular Plant Pathology Laboratory.

The FY01 budget also contained base fund increases for chicken coccidiosis, control of heavy metals in food crops, pathogen control in meat and poultry, turf grass research, semiochemical techniques for control of insects on fruits and vegetables, registration of minor use pesticides, and funding for research on the effects of barley foods on human health. In addition to these base fund increases, about 70% of the salary pay raise was also allocated to the Area.

A selection has been made for the vacant director position in the Plant Sciences Institute. Dr. Virgil Smail will be reporting in early to middle February. Dr. Smail is currently with the American Institute of Baking in Manhattan, Kansas. He not only brings his industry expertise to BARC but he also was a bench scientist at BARC a number of years ago.

The Area is also glad to announce the selection of Dr. Harry Danforth as the new Technology Transfer Coordinator. Harry is well known for his research accomplishments on avian diseases. He has had numerous successful interactions with industry partners during his research career.

Planning is underway for BARC to host a Saturday Exhibition Day in conjunction with the national MANRS (Minorities in Agriculture and Natural Resource Sciences) meeting being held in March in DC. BARC scientists and staff will display and talk about the broad research activities at BARC.

BARC scientists are again participating in the second annual Farming for Profit and Stewardship conference being held in Hagerstown, Maryland. The Beltsville Area, Future Harvest, Maryland Cooperative Extension, and the USDA SARE program all are sponsors of this event. This has been a successful venue to present current research ideas to small and under-represented farmers. Also, it provides a forum for farmers to voice their needs and concerns to the research community.

Far-B/ Miklos Faust Summer Intern Program

We are pleased to inform our members that for the third year we are able to fund the FAR-B/Miklos Faust Summer Intern Program. As previously reported, this program has been made possible by Dr. Maria Faust through a grant to FAR-B in honor of her late husband, Dr. Miklos Faust, a world-renowned scientist whose career was devoted to horticultural crops research at the Beltsville Agricultural Research Center. The Intern for the summer of 2001 will be assigned to the Fruit Laboratory in the Plant Science Institute. Dr. Freddi Hammerschlag, Director of the Fruit Laboratory, will develop a suitable assignment and conduct the recruitment process. We will give you a further report in our next Newsletter.

Financial Report

FAR-B's financial status remained healthy throughout 2000, though we ran a deficit operating budget. By careful planning, we were able to support all planned programs and activities for the year.

The Board has approved $18,705 for FY-2001, $770 less than for FY-2000. The budget exceeds total projected membership dues by approximately $10,872. We are confident, however, that we will be able to cover our budget through a combination of special contributions, interest and dividend income, and judicious use of account reserves.

FAR-B maintains four of its accounts with SunTrust Bank. After SunTrust and Crestar (our previous bank) merged last spring, we had virtually no problems conducting our financial business.

FAR-B Represented at CFC Fall Fair

For the first time, we participated this year in the Combined Federal Campaign's annual fall fair. Board member C.H. "Hank" Dickson represented FAR-B. He reports that visitors to the FAR-B table generally knew about our organization, but many were pleasantly surprised to learn we are now CFC-eligible. He explained the FAR-B mission and handed out FAR-B brochures, all the while informing visitors that they could support FAR-B by checking "code 7991" on their CFC designation forms. They liked the idea of keeping part of their CFC dollars in Beltsville, says Hank.

In all, participation in the CFC annual fair was most worthwhile. It was fine opportunity to discuss the FAR-B mission with BARC employees and to receive feedback. We won't know for several months how well FAR-B has done in the Year-2000 CFC drive.

New Far-B Membership Year

January marks the beginning of FAR-B's new membership year -- our 16th! This means that it is again time to renew your membership for the year 2001. We are pleased that a number of our members have already mailed in their dues payment. We are in the process of sending out reminders by mail to those who have not as yet sent their contributions. We will be grateful if you would renew your membership as promptly as possible so we may budget our resources for the year.

As we have mentioned before, our membership dues are one of our main sources of revenue and we rely on your continued support to carry out our commitments to BARC. Dues for the year 2001 continue as in the past --that is, $20. for Personal Members: $10. for Associate Members (USDA employees); $100. for Patrons; and $500. & over for Sustaining Members.

Newest Board Member H. "Shim" Shimanuki deliberates at recent meeting of the Board.

The Beltsville Agricultural Research Center (BARC) Mission

The Beltsville Agricultural Research Center is the centerpiece of the Agricultural Research Service (ARS), the principal research agency of the U. S. Department of Agriculture. The Beltsville Agricultural Research Center includes, the Beltsville Human Nutrition Center, the National Arboretum and three institutes. BARC spreads over 6,700 acres, with experimental pastures, nurseries, orchards, gardens, fields for cultivated crops, forested ecosystems, and soil-treatment and recycling plots. In addition, its 450-plus buildings house specialized laboratories, scientist offices, and service or administrative personnel. The National Agricultural Library, the George Washington Carver Center, and ARS Headquarters Staff are also located on the campus.

BARC has a mission to develop knowledge and technology required to solve our nation's broad, high-priority agricultural problems. BARC goals include:

- Meeting the nutritional needs of the American consumer
- Sustaining a viable food and agricultural economy
- Protecting our environment and natural resources
- Promoting sustainable food and fiber production
- Integrating technology systems to up grade agricultural efficiency

BARC research complements the work of scientific institutions and research scientists around the world. Additional information may be found on BARC' web page at http://www.barc.usda.gov.

Friends of Agricultural Research—Beltsville, Inc (FAR-B)

A nonprofit organization, FAR-B is dedicated to promoting the research and education programs maintained since 1910 at the Beltsville Agricultural Research Center (BARC). Membership includes USDA alumni and individuals or groups from academia, industry, government, and the general public. FAR-B pursues its goals by: (1) disseminating information regarding significant accomplishments and expertise at BARC; (2) organizing and sponsoring major symposia, field days, and scientific seminars; (3) generating funds to upgrade equipment and research facilities; (4) presenting information and expert testimony to the U.S. Congress and others to support adequate funding for high-priority research; and (5) helping to develop and sponsor information and exhibits for thousands of visitors from throughout the world to the ARS National Visitor Center.

Special FAR-B Activities

Visitors Programs —In cooperation with the ARS National Visitor Center, located in the Log Lodge on Powder Mill Road, FAR-B co-sponsors tours of the Beltsville research facilities for local school children and interested organizations. Special arrangements may be made by calling (301) 504-9403.

Symposia—Since 1986, FAR-B has co-sponsored international symposia at BARC. Each symposium addresses a major scientific issue or topic of concern to Beltsville scientists and the collaborators. Symposium proceedings are published and made available to the world scientific community.

Fellowships—Each year, FAR-B awards the George W. Irving Fellowship to a BARC research scientist or administrative officer for travel and study for up to six months at a laboratory in the U. S. or abroad. Applicants are encouraged to propose studies at laboratories or facilities that are on the cutting edge of agricultural research.

Summer Internships—FAR-B sponsors summer internships for high school or college students planning careers in science. Interns are assigned to a scientist-mentor who guides them in a project devoted to the improvement of some phase of agriculture.

Field Days—In cooperation with BARC scientists FAR-B co-sponsors Field Days to demonstrate the latest agricultural practices and technologies for visiting scientists, growers, and the general public.

You are cordially invited to join
Friends of Agricultural Research-Beltsville, Inc.
P.O. Box 1061
Beltsville, MD 20704-1061

- o Personal membership $20.00
- o Patron membership $100.00
- o Sustaining membership.....$500.00 & over
- o Associate membership (nonvoting USDA employees).....$10.00

Make your tax-deductible check to: Friends of Agricultural Research-Beltsville, Inc.

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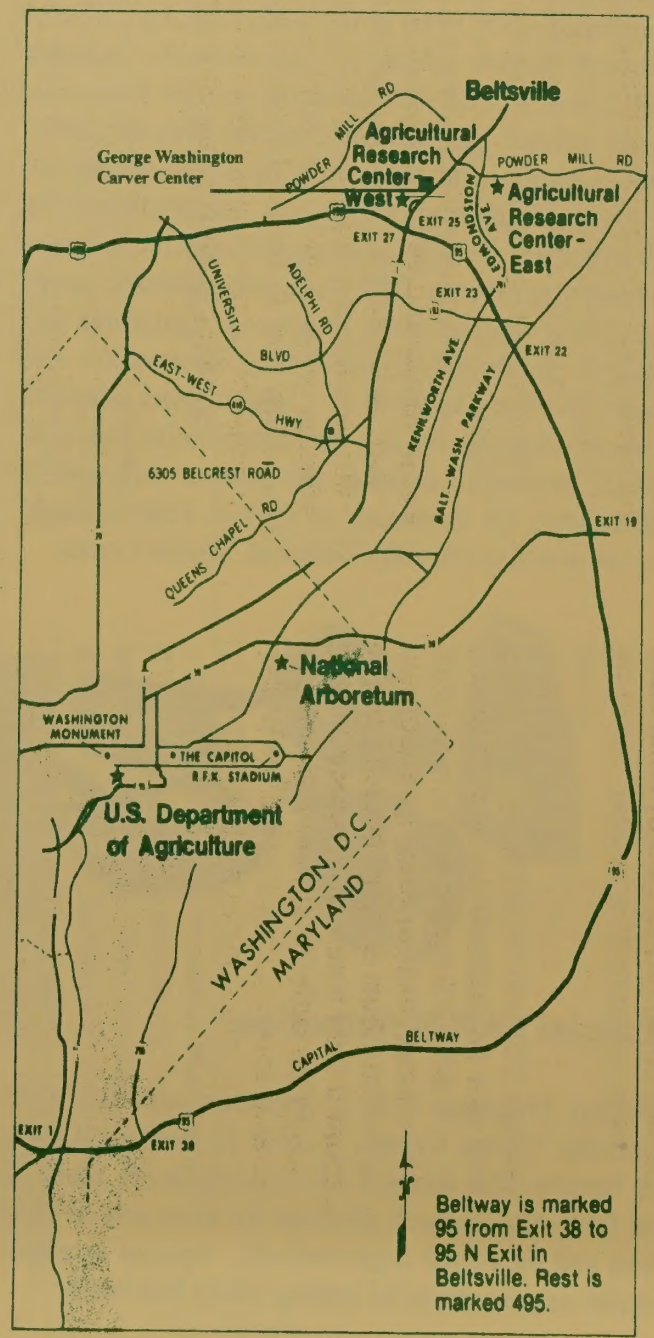

Supporting Research & Education Programs

Friends of Agricultural Research-Beltsville, Inc.

Although our membership continues to be in the 175 - 200 range, we urgently need new members. We continue to make every effort to attract new members, and although we manage to enroll a few new members each year, these are pretty much offset by depletions in our ranks through deaths, moves out of the area, or other reasons. You could help us in our efforts to attract new members by sending us the names and addresses of individuals you may feel would be supportive of our organization. We will certainly write to anyone you call to our attention and invite them to join our ranks.

We look forward to receiving your dues payments (which, by the way, are deductible for tax purposes) and we thank you very much for your continued support.

REGRETS.....

Dr. Peter H. Heinze--retired plant physiologist at BARC and FAR-B charter member--passed away on June 13, 2000, at age 90. Dr. Heinze was a plant physiologist who helped determine the best ways to store and transport fruits and vegetables. His federal career spanned 33years, mostly at Beltsville, where he studied post-harvest physiology and the biochemistry of crops to solve storage problems. Later, he was chief of the Horticultural Crops Research Branch. He retired in 1973 as a member of the ARS National Program Staff.

A longtime Beltsville resident, Peter Heinze was born and raised on a family farm near Kahoka, MO. During World War II he conducted research on crop improvement at the ARS field office in Charleston, S. C. He published widely, particularly on subjects regarding the effect of day-length on plants and factors influencing potato cooking, chipping, and french-frying qualities.

His many honors include the Department's Superior Service Award and the Boy Scouts of America Silver Beaver Award. He was a past member of the Cosmos Club, a longtime member of Rotary International (Beltsville), and a fellow of the American Society of Horticultural Science. Dr. Heinze is survived by his wife of 60 years and three sons.

Far-B Outreach Program Blossoms

Continuing its efforts to provide special educational experiences for children from nearby schools, the Community Outreach Committee organized and sponsored an October 2 fieldtrip to the National Visitor Center (NVC) for 39 appreciative youngsters from the Seabrook Elementary School sixth-grade classes of Mrs. Jill Wilson and Mr. Keith Roscoe.

Dr. Rosannah Taylor of the NVC staff coordinated the event. After introducing the students to recent developments in farm research and human nutrition, she took them on their favorite part of the field day--a tour through the animal research facilities, where students awed and giggled over watching Holstein calves, newly born piglets, and the infamous "hole-in-side" cows BARC scientists use for digestive studies.

Back at school, after consuming impressive quantities of FAR-B-supplied soft drinks and pizza, the students competed in a Jeopardy-style game that FAR-B and Dr. Taylor had devised to help students remember what they had seen.

For Spring, FAR-B is working with OPEDA, to streamline the selection process for the second annual FAR-B/OPEDA Invitational for high school students. Students who have completed outstanding pre-college science projects related to the BARC mission will be invited to display their work 10:00 a.m.–noon in Building 005. At noon they will enjoy a Boston Market luncheon, after which they will take a customized tour of BARC. The BARC community-- FAR-B members especially --are invited to the morning session. The event is tentatively scheduled for Friday April 20, 2001. Check the FAR-B web page for details at: http://hydrolab.arsusda.gov/farb.html.

Beltsville Symposium

The 24th Beltsville Symposium entitled *Healthy Animals 2000* was held September 10-12, 2000 at the Henry A. Wallace Beltsville Agricultural Research Center.

The symposium was attended by 133 persons from a variety of government agencies, universities and private industry. The symposium covered a wide variety of topics, and presented a number of approaches to insure that present and future agricultural practices would enhance both the health and well-being of production animals, and the wholesomeness and safety of products derived from these animals.

Specific areas of discussion were: *How do we define a healthy animal?*; *What is the relationship between stress and disease?*; *How do we protect animals and the food supply from disease-causing organisms?*; *What are some of the new technology and tools that can be used to control pathogenic organisms?*: and *How do we document animal health and food safety?* These topics were covered in a series of 27 invited presentations and 11 volunteered posters. In addition, Dr. Paul Putnam a past Beltsville Area Director gave a very informative and interesting talk on the *Anecdotal History of the Beltsville Agricultural Research Center*. The proceedings of the symposium will be published later in 2001 as a special issue of *Preventive Veterinary Medicine*.

FAR-B salutes co-chairs Louis C. Gasbarre and Joseph F. Urban of the Livestock and Poultry Science Institute, and Beltsville Area on the superb organization and management for a remarkably successful symposium.

(Note: The following is a shortened version of a Jim Butcher article from the July 2000 *Beltsville News*.)

History Celebrated at Beltsville Agricultural Research Center, National Agricultural Library

A partial history of the making of our great agricultural nation was on display this June (2000) in *three remarkable events* at the Department of Agriculture's facilities in Beltsville.

The first event was the annual BARC Public Day, June 3 -- featuring dozens of exhibits highlighting current BARC research, hay rides, and more, plus a tent filled with specially created historical posters to commemorate BARC's 90th anniversary year.

Those historical posters -- featuring priceless period photos -- trace BARC's roots to 1839, when an agricultural department to "collect statistics, distribute seeds/plant and

compile/distribute information" was established within the U.S Patent Office. In 1862, President Abraham Lincoln signed into law an Act of Congress establishing the department as a stand-alone entity. The first Agriculture building was erected on the Mall, near where today's USDA headquarters buildings stand.

Facilities for animal and plant studies were situated on the Mall, just north and west of the Washington Monument. But in 1863 the animals were dispatched to the Veterinary Experiment Station on Benning Road. That station later would relocate to a Bethesda site where the Bethesda-Chevy Chase Recreation Area now is located.

Beltsville's place in the department's history begins to emerge circa 1900, when USDA purchased the Walnut Grange plantation in Beltsville. The land had been owned by Thomas Snowdon. The property features the "Snowdon (or Butterfly) House" on Powder Mill Road. It was built around 1790.

Then in 1910 USDA transferred dairy and animal research to Beltsville. Suddenly the stars were aligned for "Beltsville" to become the world's premier agricultural research center.

Plant research also migrated from the Mall to Beltsville, but only after completing a time consuming detour through Arlington, Virginia. After establishing the Arlington Farms Experiment Station in 1903, USDA promptly transferred plant research from the Mall to Arlington Farms. Plant research remained in Arlington until 1939, when it was moved to Beltsville to make room for the Pentagon building.

The 1930s decade was a time of rapid growth and expansion. Active Secretary of Agriculture Henry A. Wallace oversees extensive land acquisition and construction. Forty-six major buildings and numerous greenhouses are constructed on Beltsville's 12,671 acres. Four Beltsville-based Civilian Conservation Crops units construct 21 buildings; erect 79 miles of roads, trials, and bridges and 242 miles of fences, lay 126 miles of water, sewage, and drainage pipes; move 78,000 trees and shrubs.

Several government agencies begin as part of USDA at Beltsville: among them the Food and Drug Administration, the Environmental Protection Agency, the Forest Service, and the Soil Conservation Service. The National Bureau of Standards establishes radio station (WWW) in Building 452 to study radio wave transmissions. Later, the National Aeronautics and Space Administration and others will locate at Beltsville.

Emphasis shifts from applied research to "research into the laws and principles underlying agriculture in its broadest aspects." Numerous improved landscape and ornamental plants are released. Work leading to the Beltsville Small White turkey begins. Discoveries are made about nutrition and immunization against disease.

The developments of the thirties led to the *second major June event*. On June 6, at a spirited ceremony attended by two former Senators, a sitting Senator, a sitting Congressman, the Secretary of Agriculture, and the daughter of Henry A. Wallace, BARC was officially renamed the *Henry A. Wallace Beltsville Agricultural Research Center.* Secretary Wallace, later Vice President Wallace, forged a remarkable record of accomplishments -- not the least of which were the commercialization of hybrid seed corn

and founding of Pioneer Hi-Bred International, Inc., the world's first corn seed company. Last year the Dupont company paid $15 billion for Pioneer Seed.

The third major event of June took place on the 14th, when in a moving ceremony -- dramatized by a professional actor playing the late President -- the building housing the *National Agricultural Library was named the "Abraham Lincoln Building."*

American school children learn early-on about Abraham Lincoln -- Lincoln, the great Civil War President, Lincoln, the Great Emancipator. Yet, those magnificent achievements fail to capture the full measure of the Lincoln Presidency. America's children would be impressed to learn of Lincoln the Agriculture President, or Lincoln the Land-Grant College President, or Lincoln the Homestead President, or Lincoln the Rail Road Construction and Western Settlement President.

In 1862, President Lincoln signed the Act of Congress creating the Department of Agriculture. Among others, he directed the new department "to acquire and diffuse among the people of the United States useful information on subjects connected with agriculture...".

Also in 1862, Lincoln signed the Morrill Land-Grant Act, "donating public lands to the several States and Territories which may provide colleges for the benefit of agriculture and the mechanic arts..." also "...to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life." Today, the American Land-Grant system is the envy of the world. Legions of scientists, physicians, engineers, lawyers, captains of industry, college majors of virtually every discipline have studied at our great system of Land-Grant Colleges and State Universities.

Still in 1862, Lincoln approved the Homestead Act, "to secure homesteads to actual settlers in the public domain." Other legislation granted Western lands for railroad building, effectively opening the American West to settlement.

Thus, the events of June 2000 reconfirm Beltsville's secure place in American history. Name changes may become more symbolic than practical. The National Agricultural Library will be known by that name, or simply "NAL." As for the Henry A. Wallace Beltsville Agricultural Research Center, BARC always may evoke the all-purpose, yet elegant "Beltsville."

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— Dedicated to promoting the research and education programs of the Henry A. Wallace Beltsville Agricultural Research Center, Beltsville, MD —

THE FAR-B NEWS

June 2001 *Editor: Jim Butcher*

President's Message

Dear Friends and Colleagues,

Since our last newsletter, FAR-B has had some exciting news. As a result of concerted efforts by our Vice President, Phil Kearney, FAR-B was chosen as a participant in this year's Combined Federal Campaign (CFC) to receive tax deductible contributions. Beltsville employees responded admirably, contributing over $4,000 to FAR-B in the first year of our participation. Thank you all for your generosity. We are hopeful that the second year will be even better.

Administrator Floyd Horn

Over 200 FAR-B members and BARC employees filled the auditorium on May 8, 2001 to attend our annual meeting. Dr. Floyd P. Horn, ARS Administrator, was the keynote speaker. Dr. Horn discussed items of budget, personnel, and ARS goals as they apply to the agency as a whole and, particularly, to the Henry A. Wallace Beltsville Agricultural Research Center.

Dr. Phyllis Johnson spoke about the outstanding accomplishments of BARC scientists and plans for renovations and new construction at the research center.

Because of the resignation of Treasurer Al DeMilo, an election was held for a new Treasurer to fill this most important role in our organization. Bill Wergin was elected by acclamation. Bill comes highly qualified for this position, and we look forward to working with him. During his three-year tenure, Al did a magnificent job. We wish him all the best.

Our "open season" on new membership has resulted in a number of new members whom we welcome to our organization. During this year, new members will not be expected to pay dues until 2002. Please let your friends and fellow workers know about FAR-B and encourage them to join.

This year, FAR-B has become more active in co-sponsoring special BARC activities. We have co-sponsored in-depth reviews for 7 laboratories, the BARC Public Field Day, the Sustainable Agriculture Field Day, and other field days to demonstrate the latest

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agricultural practices and technologies. Special celebrations that FAR-B has co-sponsored include: Black History Month, Women's History Month, Hispanic Heritage Month, Asian/Pacific Heritage Event, Take Your Child to Work Program, and the BARC Poster Session. With each of these celebrations that FAR-B co-sponsors, we insist that a portion of each program include the importance of agricultural research.

Please join us at a Board of Directors meeting to bring new ideas and energy to our organization. Meetings are normally held in room 238, Building 003 at 1:00 p.m. on the second Tuesday of the month (except July and August). All are welcome.

Thank you for being a friend of agricultural research and for your generous support.

Sincerely,

Ralph A. Bram, Ph.D.

Area Director's Message

Some people are starting to think that life at BARC is a circus. We've had several events recently that resulted in our erecting huge white tents on the lawn in front of Bldg. 003. In March, BARC hosted students from a national conference of the MANRRS (Minorities in Agriculture, Natural Resources and Related Sciences) for a mini-version of our public field day, and on June 2, more than 6,000 people attended our annual Public Field Day. Public Day has grown so much in the past few years that we now have two tents full of exhibits. The Systematic Entomology Lab won the prize for the best exhibit for the lay public. They will receive a piece of equipment for general lab use, such as a large-format poster printer, and the entire SEL staff will be treated to a pizza party with the Area Director and Associate Area Director.

On May 3, we held our first-ever BARC Technology Showcase in cooperation with TEDCO (the Maryland Technology Development Corporation) and the Prince George's County Economic Development Corporation. The opening remarks featured the signing of Memoranda of Understanding between BARC and TEDCO and BARC and PGEDC. The economic development folks are anxious to find private industry partners to work with Beltsville scientists and to commercialize technology that has been developed here. We received more than a dozen inquiries from private sector firms interested in the products that we featured at this event. It received significant coverage by the *Washington Post* and by some of the local business press, both print and electronic.

The appropriations cycle is in full swing again, and we are expecting the full Appropriations Committee markup from the House very soon. The Agriculture Subcommittee markup was very encouraging; the *Wall Street Journal* reported that ARS would receive about a 10% budget increase above what the President had requested, a level that would put us above the one billion dollar mark for the first time. We certainly hope that the full committee markup in the House and the markup in the Senate will be as generous.

We are expecting completion of our new Feed Mill in midsummer. It is located near the Dairy Area, closer to where feed is needed, and it will give us much better control over mixing experimental diets than we have with the existing facility. The BL-3

greenhouse for biocontrol work is coming along nicely and should also be finished by fall. This will greatly facilitate testing of bacteria and fungi for biocontrol of plant diseases and pests. The University of Maryland will begin construction on the new Animal Biotechnology Facility near Bldg 200 by early July. We have done some moderate renovation in Bldg. 173, and the new Animal Waste Pathogen Lab will be moving in there in mid-summer. We also anticipate that we will soon have a contract to begin construction on the first two phases of the new facility for the Beltsville Human Nutrition Research Center. Building 004, the one damaged by the fire, will finally be completed in December.

Preliminary interviews for the Director of the Plant Sciences Institute will be June 18. We have a good slate of candidates, and hope to have the selection process completed in July.

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Vice President: Phil Kearney
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Special Advisor: Essex Finney
Treasurer: Bill Wergin
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Outreach: Charles Dickson
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Publicity: Jim Butcher
(jim@bellatlantic.net)
Director Emeritus: Bill Bailey
wbaily@erols.com

Beltsville Area
Area Director: Phyllis Johnson
Associate AD: Ron Korcak
AD's Representative: Manya Stoetzel
Nat'l Visitors Center: John Kucharski

FAR-B/Miklos Faust Summer Intern Program

This summer will mark the third consecutive year we have been able to fund the FAR-B/Miklos Faust Summer Intern Program. This program is made possible by a grant from Dr. Maria Faust, in honor of her late husband, Dr. Miklos Faust, a world-renowned horticulturist whose career spanned over 30 years here at BARC.

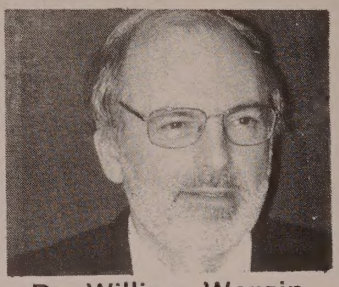
This year's Intern is Mr. Ravindra Gapaul. He will work with Dr. Jennie Rowland in the Fruit Laboratory, assisting in the development of a saturated genetic linkage map of blueberry. Mr. Gapaul, who will attend the University of Maryland in the fall, will follow segregation of approximately 20 DNA markers, 15 RAPD markers, and 5 EST-based markers in the blueberry mapping population.

As many of you know, "Mike" (as we knew him) was always interested in developing young people pursuing training in the biological sciences. We are grateful to Dr. Maria Faust for making this program possible.

Financial Report

FAR-B's financial picture looks excellent for FY 2001. So far, several planned events have already taken place. Expenses that were reimbursed for those events have come in or under that which was budgeted for them. FAR-B is more than confidant that its remaining expenditures will come in under budget.

The board is sorry to say goodbye to Treasurer Al DeMilo, who served FAR-B with great distinction over the past three years. We'll miss Al not only for his financial acumen, but also for his genial good counsel on all matters before the board.


Dr. William Wergin

Good fortune brings us an outstanding new Treasurer in the person of Bill Wergin. Last year, ARS named Bill the Outstanding Senior Research Scientist of the Beltsville Area. In bestowing the award, ARS Administrator Floyd Horn said this, "Dr. Wergin is being honored for his international leadership as a truly renaissance scientist for developing innovative scanning electron microscope (SEM) methodologies and adapting them to solving agricultural problems. His research has had significant impact in several diverse fields of agriculture--studies in food safety, bacteriology, nematology, entomology, post-harvest physiology, seed quality, hydrology, meteorology, physics and glaciology."

Formerly with the BARC Nematology Laboratory, Bill retired from ARS in December 2000. We are indeed fortunate to add this outstanding officer to FAR-B's board of directors.

FAR-B Membership

Our overall membership continues in the 175 - 200 range. Right now we have 194 members, made up as follows: One Sustaining Member – Pioneer Hi-Bred International, Inc. - contributing $500. annually; 18 Patrons, who contribute of $100. annually; 91 Personal Members -- mostly retirees, who contribute $20. annually; and 84 Associate Members - USDA employees, who contribute $10. annually.

We have been active in our efforts to recruit new members. We are pleased that in the past year we have added the following new members to our rolls:

Patrons:

- Dr. Paul D. Thompson

Personal Members:

- Dr. Robert H. Miller
- Mr. Michael Moran
- Dr. Richard E. Omohundro

Associate Members:

- Dr. Jeffrey R. Aldrich
- Ms. Mary Bowman
- Ms. Patricia Boyd
- Ms. Nancy Gatdula
- Ms. Sheryl Griffith
- Dr. Freddi A. Hammerschlag
- Dr. Yaguang Luo
- Dr. John P. McMurtry
- Ms. Carolyn L. Moore
- Dr. Christian A. Obineme
- Dr. Ronald Ochoa
- Dr. Max J. Paape
- Dr. Benjamin M. Rosenthal
- Dr. Morse Solomon
- Dr. John R. Stommel
- Dr. Marian Wachtel
- Dr. Robert J. Wall

We welcome all of these new members and hope they all have a long association with FAR-B. And we want to recognize a number of retirees in the past year or so who upgraded their status from Associate Members to Personal Members - they include: Dr. Albert E. Herner, Dr. Barbara Leonhardt, Dr. Robert D. Lumsden, Dr. K. Darwin Murrell, William E. Shainline, Jr., Dr. H. Shimanuki, and Dr. William P. Wergin.

REGRETS...

Dr. A Lloyd Ryall—retired horticulturist and long-time FAR-B patron—died April 2, 2001, in San Marco, Texas. Formerly Chief of the Horticultural Crops Research Branch of the old Market Quality Research Division, Dr. Ryall committed his research career to improving systems for storing, transporting, and marketing horticultural products. His early research was devoted to identifying optimum conditions for extending the storage life of fresh fruits and vegetables for retail markets. After retiring from the Agricultural Research Service, Dr. Ryall joined the faculty at New Mexico State University. His 1972 book, *Handling, Transportation, and Storage of Fruits and Vegetables*, (co-authored by Werner J. Lipton) became a standard college-level textbook. At New Mexico State, Dr. Ryall taught a course in post-harvest handling and storage of fresh horticultural crops. A memorial service was held on June 19 in San Marcos, Texas.

FAR-B Joins CFC

Last fall, FAR-B participated for the first time in the Combined Federal Campaign (CFC) of the National Capital Area. Our official CFC designation number is "7991". Thanks to the tireless efforts of Past President Philip Kearney, FAR-B's application to participate in the CFC drive was approved almost a year ahead of schedule.

Starting last September, federal employees could earmark a part of their CFC contributions to FAR-B by using the "7991" designation code on their pledge cards.

In May 2001, we received our first ever CFC check. FAR-B now can look forward to receiving a CFC check every month until CFC has paid out all funds pledged for the year-2000 cycle. In all, we anticipate receiving about $4,000 for the CFC year-2000 cycle.

Contributions will help support such activities as: outreach programs for local schools and others; ceremonies associated with major BARC events; the George W. Irving Fellowship Program; sponsorship of Summer Internships; or cooperation with in-depth laboratory reviews.

FAR-B is delighted to be a part of CFC and encourages all USDA employees in and around Beltsville to take advantage of this simple, direct method of supporting BARC's mission and goals. We are grateful to everyone who contributed this past year.

Please remember that our CFC designation is **7991**. Thank you for your generosity.

Focus Group and Publicity

The Focus Group prepares our annual testimony to the Congress in support of BARC research priorities and funding. The group this year consisted of Jim Butcher, Essex Finney, and Ralph Bram—backed by the able proof reading and technical support skills of C.H. Dickson. As our testimony was written, we didn't know how Congress would proceed with the FY 2002 appropriations process. Nevertheless, we forwarded what we believed to be an effective testimonial statement to the appropriate Senate and House appropriations subcommittees. As customary, we also provided copies of

the full statement to members of the Maryland state delegation.

BARC generously shared time and thoughts to help us develop a statement that was at once general enough to support BARC overall, yet specific enough to point out certain research for emphasis. We recommended new research positions in the following areas: a molecular biologist position for dry bean research; a soil and water/hydrologist position for irrigation and water management research in the mid-Atlantic states; and new a position for organic farming systems. Other recommendations included, but were not limited to, added support for nematode control and animal improvement.

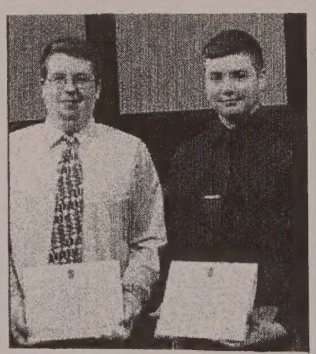
The publicity committee has now released two new issues of the FAR—B News featuring our stylish new format and banner. The publicity committee owes thanks to Ralph Bram for contributions to the re-engineering process.

Our January issue introduced a new feature that includes occasional articles about BARC drawn from the local press. As availability and space permit, we will publish similar articles in the future.

We welcome your comments on our new look, and on any part of the newsletter. Perhaps even more importantly, we invite your suggestions for future content. The newsletter is one of our most effective tools for communicating with the membership and other BARC supporters. Let us know what you think. Are there important events, developments, milestones that you want the membership to know about? We'll be delighted to hear from you.

Outreach—Beltsville Invitational Science Fair Students take first and third place prizes at International Science and Engineering Fair

"Lightning never strikes twice...", so goes an old adage. Yet the near equivalent did happen this year at the Beltsville Science Fair Invitational where two high school projects went on to capture prizes in the ultra prestigious Intel International Science and Engineering Science Fair held this year in San Jose, Calif.



Bill Martin, left, and Jon Curtis with Science Fair Certificates

Lightning struck first when Bowie High students Bill Martin and Jon Curtis took first place in San Jose for their project "Civil War Wounds That Glowed". Civil War buff Bill Martin had heard of Civil War soldiers with glow-in-the-dark wounds who appeared to have better survival rates than soldiers with nonglowing wounds. With the mentoring advice of BARC Microbiologist Phyllis Martin, the students demonstrated that strains of *Photorhabdus luminescens* may well have led to those "glowing" Civil War wounds, and through antibiotic properties may have aided healing. Phyllis Martin is studying the bacterium's potential for insect biocontrol.

Lightning struck again when Eleanor Roosevelt student Elisabeth Stratton took third place in Zoology for her

project on "Short Range Attractions Between Male and Female *Leptinotarsa decemlineata* (Colorado Potato Beetle)". A former intern in BARC's Plant Sciences Institute, Elisabeth's mentor is Dick Dickens of the Chemicals Affecting Insect Behavior. Congratulations all round!!!

Under the able leadership of C.H. "Hank" Dickson, educational outreach has become a fixture in the FAR-B line-up of activities. In general, we concentrate on taking the BARC message to parents and teachers, and especially to students at every level—elementary school-through college.

The Beltsville Invitational draws promising young science students and their teachers and mentors to BARC. BARC scientists often drop by to see and comment on student exhibits. Moreover, several mentors are active BARC research scientists—a double bonus situation for students and BARC alike.

The event always is in the Spring. This year, we invited high school students from seven schools (four metro area counties) to demonstrate their science fair projects, enjoy a lunch on FAR-B, and take a customized BARC tour, courtesy of the ARS National Visitor Center

Bioscience Showcase
by Jim Butcher
(Courtesy the *Beltsville News)*

Bringing the fruits of bioscience research to bear on real-world problems is an apt description of what they're up to over at the Beltsville Agricultural Research Center.

New technologies must pass rigorous testing on a scale large enough to prove reliability. Private industry must be willing invest the time and capital to evaluate commercial viability. Moreover, most new technologies must navigate a series of risk assessments and state or federal regulatory hurdles before coming to commercial use.

Topics such as these were the subject of the well done May 3 "Showcase for Life", the joint effort of BARC, the Prince George's County Economic Development Corporation (PGEDC), and the Maryland (state) Technology Development Corporation (TEDCO). During opening ceremonies attended by Sen. Paul Sarbanes, a Sen. Barbara Mikulski spokeswoman, and industry groups, BARC-ARS signed separate five-year agreements with PGEDC and TEDCO aimed at bringing commercially viable research technologies to the marketplace.

BARC director Phyllis Johnson said that the event's purpose was to spur partnerships between private companies and government scientists to help turn BARC research into marketable products. "We hope this event will showcase a lot of the cutting-edge research and technology we have here at BARC," she said.

Showcase is just the word for this what happened at the event. BARC researchers used oral and poster presentations to describe new technologies ranging from converting chicken feathers to fiber and paper, to sequencing the genome of a pathogenic microbe for disease control.

Chemist Jim Locke discussed a relatively new biopesticide to our markets. For generations, people in India have used parts of the neem tree for everything from cleaning their

teeth, to treating skin disorders, to protecting beds, grain bins, and clothes closets from pests. Now one need only visit a major plant nursery to find neem-based insecticidal soap and other neem seed products.

About chicken feathers... The U.S. broiler industry produces approximately 20 billion pounds of feathers per year. BARC's Walter Schmidt has invented a technology to turn chicken feathers into paper and plastic for such uses as air filters, wallboard, even decorative paper. Just this year, commercial pilot plants have come on board with capacity to produce 1,000 pounds of feather product every day.

Bob Wall of the Gene Evaluation and Mapping Laboratory discussed how genetic engineering technology is leading to genetically engineered farm animals capable of producing pharmaceuticals and industrial products. Some farmers may turn from "farming" to "pharming", suggested Wall.

His approach is to find a gene (or genes) that is responsible for a preferred characteristic, modify the gene as necessary, and transfer it to a target animal. The original gene may come be something as exacting as the gene that controls the strength of a spider's web. Today, milk from genetically modified goats is being turned into high strength fabrics, fishing lines, and products for military applications.

On the plant side, Rose Hammond of the Molecular Plant Pathology Laboratory discussed new technology for producing pharmaceuticals from plants. Her techniques include genetically modifying plants, and infecting plants with genetically engineered viruses. Tobacco is one of her favorite target plants. She sees opportunity ahead for tobacco farmers to shift from growing tobacco for traditional uses to growing tobacco for safe, low-cost pharmaceuticals, diagnostic reagents.

Other scientists discussed poster presentations over an informal lunch-mixer held under a big tent pitched on the front lawn of the Clock Tower building.

Days later, director Phyllis Johnson was still smiling over the results. PGEDC and TEDCO will help companies identify and forge working relationships with BARC scientists, she said. "Already, we've had calls from five or six companies wanting to work with us."

****

FIRST CLASS

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— Dedicated to promoting the research and education programs of the Henry A. Wallace Beltsville Agricultural Research Center, Beltsville, MD —

THE FAR-B NEWS

January 2002 *Editor: Jim Butcher*

President's Message

Dear Friends and Colleagues,

The big news, of course, is the devastation to the Beltsville Agricultural Research Center (BARC) caused by the tornado of September 24th. The Area Director's letter outlines the extent of the damage and what will be necessary for its repair.

Your FAR-B Board of Directors voted to contribute $450 to pay for lunch for all on the clean up crew who worked so tirelessly on the day after the tornado--even when the electrical power supply had not yet been restored. Then, in an unprecedented decision, the Board redirected resources from this year's budget and contributed $10,000 to replace trees, shrubs, and other landscape features that were taken out by the storm. In addition, we have established a Landscape Replacement Fund for contributions from FAR-B members, local organizations, and interested citizens. So far, this fund has grown to about $5,000 in donations from a variety of sources. The National Agricultural Research Center Federal Credit Union contributed $1,000 to the fund as did the Agricultural Research Center Employees Association.

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Special Announcement
FAR-B Annual Meeting,
2:00 p.m., May 14, 2002, at BARC.
Members and Guests Cordially Invited.

Our friends in industry have also shown a sincere interest in helping FAR-B to jump start those scientific research programs that were shut down by the tornado. The Biotechnology Industry Association is strongly encouraging its membership to become involved and the Monsanto Corporation Company has pledged to contribute $10,000 to our organization.

However, private contributions, alone, cannot be expected to provide sufficient resources to rebuild those structures that were destroyed or to replace scientific instrumentation, chemicals and biological reagents, or critical tissue samples. For the past several years, FAR-B has provided Congressional budget committees with testimonies in support of BARC. This year, our testimony will emphasize the necessity to allocate sufficient Federal

funding to fully restore the BARC facilities that were damaged or destroyed. I encourage our Sustaining Members, Patrons, and Personal Members to write letters or otherwise communicate with your elected officials in the U. S. Congress (Associate Members are prohibited from participating in this particular activity). Let your Senators and Representatives know of your support for full funding to restore BARC. You might wish to point out that BARC is the most outstanding single agricultural research facility in the world and that to retain this position of scientific excellence, it is absolutely necessary to restore all damage while continuing with the overall BARC modernization plan.

Names and addresses for your Senators and Representatives may be found on the Internet at http://www.senate.gov/ and http://www.house.gov/, respectively. Thank you.

Please join us at a Board of Directors meeting to bring new ideas and energy to our organization. Meetings are normally held in room 238, Building 003 at 1:00 p.m. on the second Tuesday of the month (except July and August). All are welcome.

Thank you for being a friend of agricultural research and for your generous support.

Sincerely,

Ralph A. Bram, Ph.D.
President

Director's Message

On Sept. 24, 2001, BARC was hit by an F-3 tornado with winds of 200 mph at approximately 5:30 pm. Fortunately, there were no injuries, but damage to facilities and research programs was substantial.

Roofs of all buildings at BARC-West were damaged, there was laboratory damage within buildings, and three acres of greenhouse space was damaged. Half of the greenhouse space was destroyed.

Limited funds (~$1.5 million) were available at the end of the fiscal year for emergency repairs. Most of these funds came through ARS headquarters from locations around the country. Current estimates for damage in addition to that are about $20 million. Three million of this is from losses of reagents, laboratory equipment, and vehicles, including 60 vehicles that were totaled and many more that were severely damaged. The remainder is damage to facilities.

The FY02 appropriation bill provides no additional funds for tornado recovery at BARC. BARC has been directed to use its $2.3 million Renaissance 93 Fund (Repair and Maintenance) and a $3 million Building and Facility appropriation that was originally intended to build new poultry facilities to repair damage. We are also expecting to receive an additional $3.8 million in Headquarters R&M funds. Thus, BARC will have less than $9 million in FY02 to meet a $20 M need. Furthermore, the reconstruction will come at the expense of other critically needed R&M and modernization activities. After the above funds are obligated, there will be about $8.9 M in unfunded needs for new greenhouse construction and grounds repair remaining as a result of the tornado. None of the above funds can be spent on the $3 million in non-facility damages, but we have received $500,000 for High Priority Requirements from Headquarters, and these funds will be used to mitigate the worst of the lab and damage and for limited vehicle replacement.

As of January, 2002, we have completed most greenhouse repairs in Range 1 and Range 4. Although some researchers are more crowded in the greenhouses than they would like to be, research programs are all continuing at some level. As funding permits, we will need to demolish Range 1 greenhouses, which were totally destroyed by the storm, and construct new greenhouses. Roof repairs on our slate-roofed buildings are nearly complete, but repairs of flat roofs remain to be done.

BARC is certainly a center of horticultural expertise, and a committee of employees has developed a comprehensive landscaping plan. Since nearly all of the landscaping between Circle Drive and First Street was lost, this is an important contribution to our future. The landscaping will feature National Arboretum Introductions and native plants. We very much appreciate the support of FAR-B in the restoration of our landscaping.

It will not be known until February 2002 whether the President's budget request for FY03 will contain a request for additional funding for facilities at BARC for either tornado recovery or modernization.

Research programs of 75-100 scientists at BARC-W were affected by tornado damage. Of scientists reporting research setbacks, the median delay in research is 6 months, the mean is 10 months, and a few scientists reported losing two to three years of work. In a few cases, there were irreplaceable losses of archived environmental samples or similar materials. Many scientists also lost large numbers of clones that will be very difficult to replace. (Phyllis Johnson)

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Beltsville Area
Area Director: Phyllis Johnson
Associate AD: Ron Korcak
AD's Representative: Manya Stoetzel
Nat'l Visitor Center: John Kucharski

You can Help--Write Congress

One way you and your family and friends can help is by contacting your senators and representatives—either by e-mail or letter—and ask them to vote for and support increased emergency funds for the cleanup and restoration of BARC. **(Federal employees excluded of course.)**

Members of Congress and their staffs tell us that constituent letters and witness testimony help them perform their legislative duties. The most effective letters, we're told, are framed in the writer's own thoughts and words. For useful hints on how and what to write, re-read the suggestions in the President's Message. Also, see the Director's Message for the latest damage assessments, repair cost estimates, and recent developments.

The section on Rate of Return contains interesting snapshots of the larger impacts of agricultural research. For a news report with brief eyewitness accounts from ground zero, see the Beltsville News story at the end of the newsletter.

Maryland residents can contact Senator Paul Sarbanes--who has visited BARC three times this year--or Senator Barbara Mikulski or Congressman Steny Hoyer or your own Congressional representative as follows:

The Honorable Steny H. Hoyer, U.S. House of Representatives, 1705 Longworth House Office Building, Washington, D.C. 20515. Telephone (202) 225-4131. http://www.house.gov/hoyer/

The Honorable Senator Barbara A. Mikulski, 709 Hart Senate Office Building
Washington, DC 20510. Telephone. 202-224-4654; http://mikulski.senate.gov/mailform.htm

The Honorable Senator Paul Sarbanes, 309 Hart Building, United States Senate, Washington, DC 20510. Telephone 202 224-4524; http://sarbanes.senate.gov/pages/email.html

You can find addresses for all senators and representatives in the Congressional Directory at a public library or on the web sites listed in the President's message. If you have access to the Internet, you may discover that you want to compose and send a letter directly on-line. (Hank Becker)

Rate of Return

BARC Director Phyllis Johnson has a ready arsenal of convincing statements and numbers to document the value of agricultural research. She shared these favorites:

USDA receives approx 2% of the total Federal R&D budget. Of this, ARS gets about half, or 1% of total Federal R&D spending. (AAAS, July '01; based on OMB R&D budget data and agency estimates. Can be found at http://www.aaas.org/spp/dspp/rd/totalpie.pdf)

Economists estimate the internal rate of return (IRR) from public investment in agricultural research to be between 7 and 148%, with most estimates in the range of 40-50%. (*Science for Agriculture, A Long-Term Perspective.* W.E. Huffman, R.E. Evenson, Iowa State Univ. Press, 1993. p. 246 and *Making Science Pay. The Economics of Agricultural R&D Policy.* J.M. Alston, PG Pardey, AEI Press, Washington, DC., 1996, pp 204-206).

The ARS has more CRADAs (Cooperative Research and Development Agreements) with private industry and patents issued per dollar of appropriated funding than any other Federal agency. For FY98 ARS had 38.4 CRADAs and 10 patents per $100 million of appropriated funds. The number two ranking was Dept. of Commerce for CRADAs (30.9/$100M) and NIH for patents (6.5/$100M). Source, ARS Technology Transfer Office, 1999.

A study of research papers that were cited on the cover pages of U.S. patents in the two year period from 1993 to 1994, showed that, in the area of basic biology, papers from ARS were cited more than three times as often as any other institution (Second place went to UC Davis). The NSF-funded study indicated that industry is using basic research from government and universities more and more to

advance its technology. The cited articles are characterized as "from the mainstream of modern science--quite basic, in influential journals, authored at top-flight research universities and laboratories..." "Public science drives innovation, " Will Lepowski, *Chemical and Engineering News*, Sept. 1, 1997; F. Narin, K.S. Hamilton, D. Olivastro, The Increasing Linkage between US Technology and Public Science, *Research Policy*, 1997.

Personnel Note: ARS Administrator Floyd Horn has accepted a one-year detail to the Office of Homeland Security, for agriculture, water, and air. Associate Edward Knipling is acting.

Beltsville Landscape Fund

The response to our letter regarding the devastating tornado that ripped through BARC on Sept. 24 has been splendid. To date, we have received contributions from employees , retirees, and others, totaling nearly $5,000. This amount, combined with the $10,000. committed by FAR-B from its reserves will be a big help in restoring the BARC landscape to its former beauty. Though the list of contributors is too lengthy to publish here, we have thanked each of our contributors by letter. Still, we would like to express special appreciation to the NARC Federal Credit Union and to the ARC Employees Association, each having contributed $1,000.

Several other initiatives are underway to attract additional funds for landscape restoration. These include contacts with agricultural companies, nurseries, and other businesses in the local area and around the country. We are working closely with the official BARC Landscape Committee that the Director has established to plan and implement the landscape process. They are well along with drawing up a long-range "landscape plan," complete with specific plant materials, planting schedules, site preparation, after-planting maintenance requirements, etc.

Final plans are still evolving, but current thinking calls for restoring the landscape along Circle Drive in the early spring. Other landscape work will follow soon. We will keep our membership informed as this process moves into high gear. (Frank Longen)

Membership and Dues

Our membership remains strong. Currently, we have 196 members -- one Sustaining, 17 Patrons, 89 Personal, and 88 Associates.

We welcome these new members who have joined since our last Newsletter: Hank Becker, Personal Member (who will be working with the Board of Directors); and Dr. Perry B. Cregan, Associate Member. Also, we welcome from the National Agricultural Library Associate Members Stuart B. Gagnon and Maria G. Pisa. We are grateful for the support of all our members and hope our more recent members will be with us for many years to come. Thanks to all!

January marks the beginning of our 17th membership year. Please remember to renew for 2002. Some members have already mailed in their dues, and we thank them. Individual reminders will be mailed at the end of January. But don't please don't wait; save us time and postage by sending your dues *now*.

Membership dues are one of our main sources of revenue. We rely on your support to carry out our commitments. Dues for 2002 remain.$20 for Personal

Members; $10 for Associate Members (USDA employees);$100 for Patrons; and $500 or more for Sustaining Members. (Frank Longen)

Regrets

Dr. Walter M. Carleton, a Charter Member of FAR-B and an agricultural engineer who worked for ARS at Beltsville for nearly 25 years, died October 4 at the Homewood Retirement Community in Frederick, MD.

A graduate of Kansas State University, he also received a master's degree from Iowa State University and a doctorate from Michigan State University, both in agricultural engineering. He came to the ARS Agricultural Engineering Research Division in 1956, which he directed for several years. From 1974 to 1980 he directed the ARS Far-Eastern Regional Research Office, in New Delhi.

Dr. Carleton was co-author of the 1950 text "Tractors and Their Power Units," which is still used. He was a fellow of the American Society of Agricultural Engineers and a recipient of the Cyrus Hall McCormick Medal.

Dr. Clair E. Terrell, a member of the ARS Science Hall of Fame and a Charter Member of FAR-B, passed away on November 10, 2001. His federal career spanned more than 36 years, most of them at Beltsville. He was nationally and internationally recognized for sheep and fur animals research.

Dr. Terrell published over 200 articles on sheep breeding and production. A fellow of the American Society of Animal Science and the American Association for the Advancement of Science, Dr. Terrell received many honors, including the Distinguished Service Award of the American Sheep Producers Council and the Saddle and Sirloin Portrait Award. (Frank Longen)

Combined Federal Campaign

In last year's campaign, our first, we raised almost $4000. It was a good beginning, but after the campaign closed we learned that many BARC employees were unaware of FAR-B participation in the local CFC campaign. To address this problem, for new campaign we had 1,000 color fliers printed and distributed to all personnel in BARC labs. We also got our message over to the National Agricultural Library. As you will know from other parts of this newsletter, we contributed $10,000 for tornado recovery at the Center. We emphasized in our flier that we were also soliciting funds in FAR-B to the FAR-B Landscape Fund. We want to thank everyone who contributed to the 2001 CFC drive on our behalf. As we emphasized in our flier, FAR-B returns 97 cents of every donated dollar to the Center. (Phil Kearney)

FAR-B/Miklos Faust Internship

As reported in our previous Newsletter, for the third straight year FAR-B has funded a Summer Intern from a grant by Dr. Maria Faust in honor of her late husband, world-renowned horticulturist Dr Miklos Faust. At a small October ceremony, year-2001 Intern, Ravindra Gapaul, discussed his work with Dr. Jennie Rowland, of the Fruit Laboratory. Mr. Gapaul worked on developing a saturated genetic linkage map of blueberry. We were pleased that Dr. Maria Faust could be present for this

ceremony, and we appreciated her remarks. FAR-B was represented by Drs. Phil Kearney and William Wergin. Our sincere thanks to Maria for making this program possible and to Dr. Freddi Hammerschlag and Dr. Rowland for providing the assignment in the Fruit Laboratory. Mr. Gapaul is studying biology at the University of Maryland. We wish him we every success. (Frank Longen)

Beltsville Invitational For High School Interns Slated

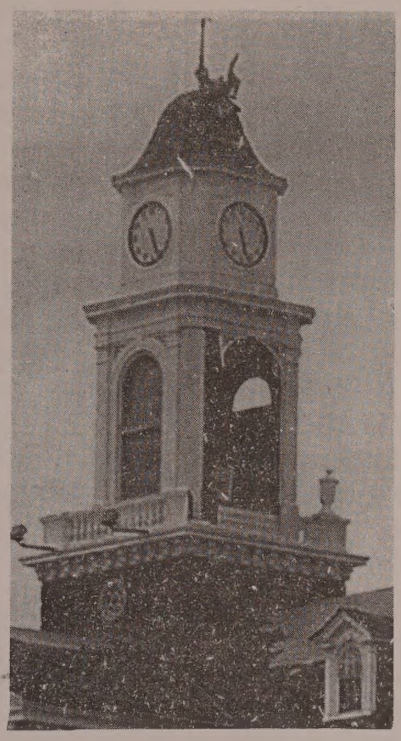
April 12, 2002, has been set as the date of FAR-B's Third Annual Beltsville Invitational. This year's outreach event will feature members of the group of two dozen high school student who have spent part of their school year in ARS laboratories as working interns.

Everyone in the BARC community is encouraged to attend and view displays by students and their mentors from 10 a.m. till noon in the ground floor conference facility, Building 005. Raulins donuts and Starbucks coffee will be available. (C.H. Dickson)

Tornado Hit BARC Hard

by Jim Butcher
(Courtesy *The Beltsville News*)

Much has been made in *The Beltsville News* of the huge hit the Beltsville community took from the September 24 storm that ripped our though our neighborhoods. Less has been said about the millions of dollars of damage inflected on the neighboring Beltsville Agricultural Research Center. A bit belatedly, *The Washington Post* editions of September 28 and October 11 carried stories on the tornado.



The storm struck BARC at 5:27 p.m. That's when the clock in the tower above Building 003 stopped working. Moments later, trees and shrubbery gracing Circle Drive along Route 1 lay in hopeless tangle. Some eighty-five vehicles were damaged, 20 or more were totaled. Window air-conditioners flew inward across desks and work spaces where workers would have been before the traditional 4:30 quitting time. Miraculously, no one was injured. Had many employees not left work earlier, this could well be a grimmer story.

"We don't have a greenhouse without broken panes," a scientist said. Several greenhouses were demolished. Computers and research supplies (including chemicals) were wrenched free, tossed about, or spilled. A double row of willow oaks planted in 1939 went down. A majestic 100-year-old native American elm crashed to the ground. Fifteen buildings were damaged, mostly roofs, windows, and inside chemical spills and wreckage. First damage estimates ranged $30 to 40 million. "Even those estimates don't begin to appraise our losses of disrupted or damaged research materials, data, and lost time," says Phyllis Johnson.

But recovery has begun. The Friends of Agricultural Research-Beltsville

(FAR-B) has established a Beltsville Landscape Fund with a base of $10,000 to help restore the landscape. Tax deductible donations may be mailed to FAR-B, P.O. Box 1061, Beltsville, MD 20704-1061.

Research Botanist Joe Kirkbride wrote: "As I entered the south stair well, two people were descending the stairs. I yelled at them that a tornado was arriving and to get away from the windows. The South stairwell (of my building) has a window running its full height! They replied that they had never seen a tornado and kept going. They opened the door and went outside as the tornado was arriving! I saw them later, so they survived."

Senior Remedial Project Manager Lori Miller filed this account: "There was a terrific vacuum in the building, and our ears started popping. We stood in the hallway, and I was trying to remember from my childhood in the Midwest (Skokie, Illinois) what it is one is supposed to do in a tornado. I remember saying to (co-worker) Walt (Miguez) that the safest place is in the basement away from windows. I could hear glass breaking, and what seemed like every door in the building breaking. I tried to think what I could hide under, because I was afraid the doors would rip from their hinges and come flying at us. I wondered if I should kiss myself goodbye.

"(Later) we went up stairs, and we saw that the stained glass window above the entrance of the building had been blown in. There were shards of glass and leaves and debris all over the floor. Then we opened the door and looked outside, every tree and every power pole was snapped at the ground.

"Other people came out of the building, and they were saying "we should see the cars." I was certain they didn't mean *MY* car. I went out back to look. All I could say was "Oh my God" everyway I looked. My car looked like there wasn't much I could do to help it, because the windshield was draped over it like a wet towel, the side windows were blown in, and there were slate tiles (from building roofing) in the front seat. At least it didn't look as bad as the others (cars). Around midnight someone lent me a vehicle so I could go home, although I needed a police escort to get out.

"Sometimes I question if it really happened, especially since the news made no mention of it (till later). But one look at the pictures of my car, and I know it was real. Thank God no one was injured here. I feel numb about it though.

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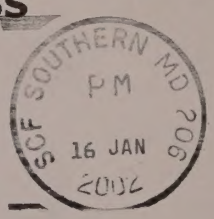
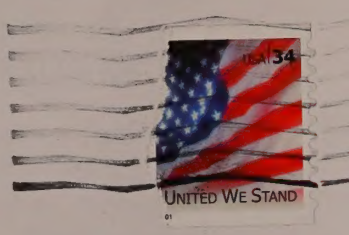




Francis J. Longen
10114 Towhee Ave.
Adelphi, MD 20783

Friends of Agricultural Research-Beltsville, Inc.
PO Box 1061, Beltsville, MD 20704-1061

— Dedicated to promoting the research and education programs of the Henry A. Wallace Beltsville Agricultural Research Center, Beltsville, MD —

THE FAR-B NEWS

June 2002 *Editor: Jim Butcher*

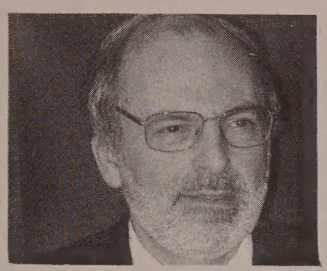
President's Message

Dear Friends and Colleagues,

Our sixteenth annual meeting was held in May in the main auditorium of the Henry A. Wallace, Beltsville Agricultural Research Center. The following new officers were elected to the Board of Directors:

William Wergin, President
Ralph Bram, Vice President
Janet Ferst, Membership Chair
Phil Kearney, CFC Chair
Hank Becker, Writer
Darwin Murrell, Foreign Based

Outgoing President Ralph Bram summarized the past year's achievements. He said, "The tornado of September 24th caused enormous damage--conservatively estimated at $21.5 million. FAR-B responded immediately by contributing $450 to feed an emergency clean-up crew, which worked long hours without the benefits of electrical power."



Dr. William Wergin

Other Highlights:

1) FAR-B revised its operating budget, established a Landscape Replacement Fund, and contributed $10,000 to the landscape fund. The National Agricultural Research Center--Federal Credit Union and the Agricultural Research Center Employees Association each contributed $1,000. Our members, local organizations, and interested citizens contributed over $3,000 more. These contributions totaled over $15,000--all of which we made available for landscaping activities. A BARC Landscaping Committee, appointed by the Area Director, worked closely with the nursery industry, who donated or discounted numerous trees, shrubs and ornamentals. As a result, the equivalent of over $40,000 was raised and used to replace plantings destroyed by the tornado. In addition, the Monsanto Corporation contributed $10,000 to FAR-B to replace lost chemicals and reagents.

2) Membership Chair, Frank Longen, reported that our membership has increased to about 200. This includes eight Sustaining Members: Pioneer HyBrid International, Monsanto Corporation, The National Agricultural Research Center--Federal Credit Union, the Agricultural Research Center Employees Association, Arbor Wholesale Distribution Center, Plant Development Services, Inc., Angelica Nursery, Inc., and Montgomery County Community College.

3) Our community outreach program continued to thrive under the leadership of Charles Dickson. For the past five years, FAR-B, in cooperation with the ARS National Visitor Center, sponsored one-day field trips for sixth grade students from Seabrook Elementary School. The goal of this activity is to give young people an accurate impression of what scientists actually do. On April 12th, a day of recognition was held for Eleanor Roosevelt High School students who had

earned science credit in BARC laboratories. Nearly 30 students presented poster displays at which BARC staff members and mentors viewed and discussed the students' projects.

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wwergin@msn.com
Vice President: Ralph Bram
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Treasurer: William Wergin
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Special Advisor: Essex Finney
Membership: Janet First
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Writer: Hank Becker
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Directors Emeritus:
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Frank Longen—flongen2@juno.com
Beltsville Area
Area Director: Phyllis Johnson
Associate AD: Ron Korcak
AD's Representative: Allan Stoner
Nat'l Visitor Center: John Kucharski

4) The Publicity Committee, Chaired by Jim Butcher, issued two Newsletters. We also forwarded what we believe to be effective testimonial statements to the appropriate Senate and House appropriations subcommittees. Copies of the full statement were presented to the Maryland State delegation. This year, our testimony encouraged Congressional support for new research initiatives, new facilities, financial recovery from tornado damage, and retaining the Bee Research Laboratory at Beltsville.

5) CFC Chair Phil Kearney reported that we received over $7,000 in employee contributions during our second year of CFC participation. This is more than twice the amount that we received during the first year. Ralph thanked contributors for supporting the research, educational, and outreach programs of FAR-B.

The election produced two major changes on the Board. First, Ralph completed--as he put it--"the fourth year of a three-year term..." He thanked the membership and particularly the Board of Directors for their cooperation and support. Second, Frank Longen--a FAR-B charter member who has held every office and has contributed to every activity that FAR-B has ever initiated--had expressed a desire to retire from the Board. However, the Board did not let Frank off that easy. Instead, the Board appointed Frank to the Board for Life and honored him a with commemorative plaque, which reads "In recognition for outstanding contributions to founding, sustaining, and guiding the organization, the Friends of Agricultural Research--Beltsville do hereby declare and appoint FRANK J. LONGEN Life-time Board Director Emeritus".

Now we begin a new year. With your support, we will continue to work toward our goal to promote the research and education programs of the Henry A. Wallace, Beltsville Agricultural Research Center. Members are cordially invited to join us at our monthly Board meetings and bring your ideas and enthusiasm to your organization. Meetings are normally held in room 238, Building 003 at 1:00 p.m. on the second Tuesday of the month (except July and August).

Sincerely,

William P. Wergin, Ph.D.
President

Director's Message

BARC is starting to look more like itself again. The landscaping plants donated through FAR-B to replace those lost in the tornado are beginning to fill out. Our landscape is green once more. As I write, there is a crane outside Bldg. 003 replacing the windows in the clock tower. A new clock is on order. Steam lines are being rerouted so that the Range 1 greenhouses can be demolished and new construction can begin.

Directly south of BARC, major construction activity has started on the new IKEA that will open behind the Holiday Inn about a year from now. The site is bare of trees, leaving a view of BARC from the south on Rt. 1 that hasn't been seen for a long time. IKEA will pay for widening of Rt. 1 from the Beltway up to Sunnyside Avenue. They will put in turn lanes and make other improvements. Expect to see some road work start sometime this summer. Since they need a bit of BARC land to widen the road, we in return are receiving about $300,000 worth of improvements, including a nice wrought iron fence on our south boundary to replace the chain link fence destroyed in the tornado. IKEA also will grind up all of the logs remaining from our vast pile of fallen trees.

Unrelated to the tornado, but to another tragedy-- the January 1999 fire, Bldg. 004 is finally full of its new tenants, the members of the Molecular Plant Pathology Lab. This modern building is the envy of all.

We are in the process of hiring a Beltsville Area Security Coordinator, who will report to the Area Director's office. This new position will assist us in responding to the many new security requirements that have arisen since Sept. 11.

BARC was recently recognized by the White House for its excellent environmental management system. We received one of 26 awards handed out government-wide. This is the second straight year we've gotten one of these awards. Phyllis Johnson, Ron Korcak, John Van de Vaarst, and Dave Prevar all went to the West Wing of the White House (the Old Executive Office building) on June 11 to receive the award. The award ceremony was followed by a nice reception in the famed Indian Treaty Room. We're trying to figure out how to get a third straight award--the triple crown?

Our researchers continue to gain honors right and left. Several have recently learned they are getting major national awards from their professional societies. At the recent Federal Laboratory Consortium meeting in Little Rock, AR, BA scientists received three of the 27 awards given across the government. Considering that ARS has only one percent of the Federal R&D budget, and that BA has only about a tenth of that, I think we've done quite well.

Phyllis Johnson,
Director

ANNUAL MEETING FEATURES ARS ADMINISTRATOR

After his summary remarks, outgoing president Ralph A. Bram introduced current board members and thanked Manya Stoetzel for her work as the director's representative to FAR-B over the past years. He acknowledged the work of Congressman Steny H. Hoyer who represents the district that includes Beltsville, extolling Hoyer's steadfast support for BARC. FAR-B plans to present Congressman Hoyer with a plaque of appreciation for his contributions.

Beltsville Area Director Phyllis Johnson then introduced ARS Acting Administrator Edward B. Knipling who outlined several issues and actions affecting ARS.

Knipling talked about how since Sept. 11 several issues regarding homeland security have dominated the agency whose scientists' expertise on culture collections, biotechnology and genome mapping are critical to protecting the country against possible future acts of terrorism. Knipling also remarked that for the first time the agency's budget has base funds of $1 billion dollars. ARS enjoyed the largest FY-2002 budget increase in recent history. Such an increase reflects the importance of ARS research across the nation and globally.

Knipling went on to explain how this budget increase would help to increase the ARS scientific staff to 2400 SY's and allow the agency to attract and retain scientists in ARS.

Next Johnson commented on how FAR-B has helped with replacing landscaping around BARC. She mentioned that thanks to FAR-B's $10,000 donation plus contributions from industry the re-landscaping project will use plants developed and introduced by the U.S. National Arboretum which is part of the Beltsville Area. These plants were developed for the geographical area that includes the Beltsville Center.

Next, Bram was acknowledged for his work and dedication as president of FAR-B for the last four years. Membership Chair Frank Longen was appointed for life to the FAR-B board for his years of dedication and work with FAR-B.

Last, Morton Beroza reported on the nominations of new officers and board members for election: All were elected by acclamation by the members attending the meeting.—Hank Becker—

FAR-B Budget Plan, CY-02

New FAR-B President Bill Wergin (and still Treasurer pending a replacement) believes the membership should know more about the funds FAR-B deals with and our activities. Thus, in a spirit of openness and accountability, we show below our Calendar Year-2002 operating plan.

Estimated Income	
Member Dues	$5,000
Contributions	300
Interest	1,500
Dividends	500
Handling Fee (SELF)	200
Symposiums	5,500
CFC	3,000
Landscape Donations	5,000
Monsanto Donation*	10,000
Total	$31,000

Estimated Expenses	
Landscape—FAR-B	$10,000
Landscape—Members	5,000
Monsanto Donation	10,000
BARC Poster Day	500
Area Office Events	400
Dedications	600
Annual Meeting	100
Community Outreach	500
Special Events	1,000
Symposia Expenses	5,000
Postage	260
Post Office Box Rental	80
Office Supplies	100
Printing	400
Total	$33,940

*Generous donation for replacing lab supplies lost to the tornado.

Re-landscaping BARC-West

The FAR-B Board of Directors has worked with the BARC landscape planning committee, chaired by Allan Stoner, to implement the committee's plan to restore the BARC-West landscape decimated by last September's tornado. Replacing hundreds of trees and shrubs--many 75 to 125 years old-- is an impossible task to complete in the nine months since the tornado struck. Yet, substantial progress has been made. The comprehensive landscape plan calls for using plants that meet three major criteria: 1) compliment the attractiveness of BARC buildings, 2) require minimal maintenance after becoming established, and 3) "tell a story" about National Arboretum releases, regional native plants, etc.

Because available financial and human resources were inadequate to implement the entire plan at once, the landscape committee decided to focus initially on restoring highly visible areas. As a first step, FAR-B paid Holland Gardens of Beltsville $5,000 to move the 20 plants left standing in front of Bldg 003 to other campus locations.

Subsequently, FAR-B Board members contacted six nurseries regarding the 165 trees and shrubs needed for planting near Circle Drive and from Bldgs 001 to 005. For less than $1,000 they received commitments for 108 plants with an estimated value of $6,000 wholesale, or $12-15,000 retail. FAR-B also paid $5,600 to dig and transport 21 "specimen" trees donated by the Montgomery Community College--Dutch elm disease resistant elms, sugar maples, river birches, red maples, honey locusts, and a Kentucky coffee tree. FAR-B also arranged to move several other trees from the ARS Glenn Dale site.

Stoner's committee knows that more time and money will be needed to implement the overall plan, which calls for replanting along the north and south property lines and around Bldgs 006, 007, 009 and 046 to 049. Working with the BARC Roads and Grounds staff, they have agreed to avoid planting more than can be properly cared for now--particularly with the prospect of summer drought. Regarding additional funding, approximately $4,000 of the $15,000 FAR-B allocation remains uncommitted. FAR-B is specially appreciative for the generous contributions we have received from members, organizations, and others. With your continued support, FAR-B be able to assist this important project through to completion. —Allan Stoner and Hank Becker—

Fall 2001 CFC Campaign Big Success

Thanks to the generosity of BARC and other federal employees, the 2001 campaign doubled the amount raised the preceding year. For the fall of 2000, FAR-B's first CFC campaign, we raised about $3,500. This year's contribution amounted to $7,937.26. These funds will allow us to continue helping Beltsville recover from last year's tornado damage and support other vital programs.

One problem we experienced last year was that many employees did not know FAR-B was approved to receive charitable contributions from the United Way of the National Capital Area. We must make a special effort to inform all BARC employees of our fund-raising activates on behalf of the Center. Our outreach programs and low overhead, about 3 percent, were strong points in our CFC application. Next year our goal is to raise $10,000 for a number of tornado related projects and other programs. —Phil Kearney—

National Visitors Center Hosts 25,000 Yearly

BARC has often been called the "jewel in the crown" of the Agricultural Research Service. Each year, BARC attracts about 25,000 visitors from around the world. Many are from countries whose peoples look to the U.S. and ARS as the world leaders in agriculture. Some come to see for themselves the state-of-art science and cutting edge technology that has made the U.S. the envy of the planet. Many others are American high- and elementary-school science teachers. Teachers and students get a good look at what agricultural scientists do, what agricultural science is all about, what food crops and animals look like, why they are important. (See the Community Outreach heading below for more.)

When visitors come to BARC, most are hosted by the National Visitors' Center on Powder Mill Road. Old timers remember it as the Log Lodge built by the Civilian Conservation Corp during the Depression Era. Over the years, the Log Lodge has served as a cafeteria and administration building.

Today, the center attracts peoples of all ages and occupations. Often, students of all ages are given tours of the facility. Corporate executives and foreign dignitaries are shown some of the wonders of the agricultural world and get to meet BARC scientists face to face and talk about their research..

Recently, John Kucharski who oversees the center reported to the FAR-B board that every Friday afternoon from 1 to 4 p.m. during the summer about 20 visitors from Monsanto and the Future Farmers of America visit the center.

"They get an overview of BARC, meet with the scientists, tour the facility and participate in workshops—hands on programs," he says.

Anyone wanting to visit the center can call (301) 504-9403 to arrange a tour. Tours are only run on weekdays. —Hank Becker—

In Memorium

Dr. A. Morgan Golden, formerly of the BARC Nematology Laboratory, died on May 24 in Silver Spring, MD. He was a long-time member and supporter of FAR-B. Born near Milledgeville, Georgia, Golden spent all but three years of his federal career at Beltsville. He developed keys to help scientists identify nematodes. He also established the Department's nematode collection, which today consists of over 36,000 permanent slides and vials, the largest of its kind in the world.

Golden was a past President of the Society of Nematologists and the Helminthological Society of Washington. He served on the Editorial Boards of Nematologica, Nematologia Mediterranea, the Pakistan Journal of Nematology, and the Journal of the Helminthological Society of Washington. His numerous honors and awards include Fellow status in the Society of Nematologists, the American Phytopathological Society, and the Washington Academy of Sciences. In 1985, the Helminthological Society of Washington awarded him its 75th Anniversary Award. He also received the Department's International Honor Award. Golden's grateful colleagues have named more than ten nematode species in his honor.

Dr. Clarence H. Hoffmann died in Lenoir City, TN. Hoffman was a FAR-B Charter Member and long-term employee at Beltsville. He assisted in the administration of the agency's

entomological research programs. He retired from ARS in 1973.

A native of Oklahoma, Hoffman spent 15 years conducting entomological research for the Forest Service. He joined the former Bureau of Entomology and Plant Quarantine in 1950, which became a part of the Agricultural Research Service in 1954. He received numerous merit awards. He was a Chairman of the Food and Agriculture Organization (United Nations) Expert Committee on Pesticides in Agriculture. A member of several honorary and scientific societies, Dr. Hoffmann published 78 scientific papers, and made numerous national and international presentations.

Dr. Gene J. Galletta, 71, retired research geneticist and formerly of the BARC Fruit Laboratory, died March 22, 2002. He had been an early associate of famed berry breeders George Darrow and Donald Scott.

During his long career, Galletta and associates introduced over 50 new strawberry, blueberry, thornless blackberry, and raspberry cultivars. He contributed to more than 220 professional articles and book chapters and co-edited the book "Small Fruit Crop Management." A Fellow of the American Society for Horticultural Science, Galletta received the Wilder Medal for merit in small-fruit cultivar improvement and the ASHS cultivar of the year award for the Chester Thornless blackberry.

Honors

Dr. Burton Endo, former Plant Pathology Institute Chairman and Nemotology Lab Research Leader, will receive the Henry A. Wallace Award during October 2002 Homecoming Activities at Iowa State University. Dr. Endo took his B.S. degree in horticulture from Iowa State in 1951. He earned M.S. and Ph.D. degrees at North Carolina State University.

The Henry A. Wallace Award recognizes an Iowa State alumnus who has contributed to national and international agriculture in writing, teaching, and research leadership. The award letter to Dr. Endo recognizes, among other contributions, his work as one of the first to study methods to control the soybean cyst nematode. Previous award winners have guest lectured in various departments of the university. No word has been received from Burt as to the subject of planned lectures as we go to press.

Heartiest congratulations to our colleague Burt Endo on this special honor!

Community Outreach

This past year outreach activities have concentrated on one large event for high school students and a smaller, companion event for elementary school students. In April, FAR-B sponsored a "day of special recognition" for Eleanor Roosevelt High School (ERHS) students who have earned high school science credits as part-time workers in BARC laboratories. A science and technology magnet school, ERHS draws students from communities such as Laurel, Bowie, Glenarden, Hyattsville, Bladensburg, and Beltsville. Thus, this event features students from throughout Prince Georges County.

Some thirty students brought science exhibits to a BARC conference facility. BARC staff and students mentors were invited to view the exhibits and join students in some informed discussions.

Topics ranged from basic archival research ("Animal physiology") to wide-scale

analyses ("Effects of agriculture on environmental quality") to the micro-specific ("Antioxidant capacity in berry crops").

Held on a school-system holiday to avoid complicating students' classroom attendance, a luncheon featuring awards from the BARC leadership capped the day's activities. The National Visitor Center (NVC) made its high-profile bio-diesel tour bus available for a special interpretive tour of the BARC research facility.

For the past five years, FAR-B has sponsored a full-day field trip for sixth grade students from Seabrook Elementary School--an inside-the-Beltway school. Though some 70 percent of Seabrook students participate in a subsidized lunch program, they have turned-in an astonishing record of almost 99 percent attendance. We selected the sixth grade level for this event because those students are preparing to leap to middle school, where many will make decisions affecting their entire future careers. FAR-B's goal was not to just promote another "career day", but rather give the young people an accurate picture of what it is that scientists really do.

At the NVC, the 60 participating students (including 18 Special Education students) broke into smaller groups to hear scientific presentations on human nutrition and entomology (insects). Next came a visit to the animals in the barns. Finally, back at the school, an all-you-can-eat pizza luncheon was followed by a "Millionaire's" quiz game, underscoring how much data had been retained from the field trip.

Do FAR-B-sponsored events like this one for Seabrook sixth graders have lasting impact? Do they encourage young students to think about the wider world they are just beginning to experience? We believe the answer to both questions is richly "yes." We find confirmation in letters we have received from students like Seabrook's Kala Barkley. After a BARC field trip Kala wrote this in a letter to FAR-B: "I thank all of you for making this trip happen for us and I hope we can do something like it again. It helped me to think about what I can do to help keep this earth good." —C. H. Dickson—

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— Dedicated to promoting the research and education programs of the Henry A. Wallace Beltsville Agricultural Research Center, Beltsville, MD —

THE FAR-B NEWS

January 2003 *Editor: Hank Becker*

President's Message

Dear Friends and Colleagues,

Let me begin by drawing your attention to the fact that *The FAR-B News* has a new editor, Hank Becker. Formerly, with the Information Staff, Hank was the national media liaison for ARS before he retired. Now, he is a member of the FAR-B Board as the publicity chair. Through the years, I'm sure you have all read many of Hank's articles in the *Agricultural Research* magazine as well as in *The Quarterly Research Report of Congress*. We are grateful to have his time and talents on the Board.

Jim Butcher, the former editor, asked to be relieved of this duty so that he could devote more time to his other assignments on the Publicity Committee, BARC Landscaping Committee and as our Legislative Liaison. Many thanks, Jim, for your persistence and patience in editing and publishing *The FAR-B News*.

Another new assignment on the Board is that of Treasurer. Vern Pursel, a recent retiree as Research Leader of the Gene Evaluation and Mapping Laboratory, assumed the position this past fall. Vern's understanding of spreadsheets and pie charts has given us new visual aids for tracking our income and expenses.

The Board is currently assessing our budget and goals for the coming year. Thanks to our members, as well as to a generous ($10,000) contribution from Monsanto Corporation, FAR-B had income of approximately $30,000 in 2002. In addition to our research, education and out-reach activities, our efforts also centered on working with the BARC Landscaping Committee to restore the plantings that were destroyed by the 2001 tornado. This activity is nearly complete and I am happy to report that an estimated $40,000 to $50,000 worth of nursery stock--much of which was donated or discounted by the nursery industry--has been planted at BARC-West.

We anticipate that our income for 2003 will be about $20,000, which will be used for research (51%), education (35%), outreach (11%) and administrative (3%) activities. Although we do not anticipate sponsoring any large symposia, several scientists have contacted the Board for assistance with workshops. In addition, we will help sponsor the Distinguished Lecture Series that the BARC Area Director initiated in 2002. This series consists of 4 to 6 speakers of international reputation, who present formal, general interest lectures to the BARC scientists and then meet informally with groups in similar disciplines.

The most recent lecture, given by Dr. May R. Berenbaum, was entitled "Insects--Aliens from the Planet Earth". FAR-B members are welcome to attend these lectures. If you have access to email, please contact Janet Ferst (Janetferst@aol.com), Chair of the

Membership Committee, and she will send notices of future lectures.

As always, we appreciate any comments that our members may have concerning the activities of FAR-B. Please feel to contact me (wwergin@msn.com) or any other Board member.

Sincerely,

William P. Wergin,
President

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Beltsville Area
Area Director: Phyllis Johnson
Associate AD: Ron Korcak
AD's Representative: Allan Stoner
Nat'l Visitor Center: John Kucharski

Director's Message

Budgets, budgets, budgets. This has been an unusual year for budget allocations. As this Message is being written, we have had the recent announcement of the President's 2004 budget. Of note, the President's 2004 budget fully restores the Bee Research Laboratory at BARC. However, we do not know how we will fare with the 2003 budget that is still being decided upon in Congress. Therefore, we are still operating under 2002 budget allocation limits. Hopefully, by February's end, we will know more.

After an extensive search, we have selected a new Administrative Officer for the Beltsville Area. Mr. Bob Serrano--who is currently a Realty Specialist at Headquarters--will report to duty by early March. Bob has been the Area Property Management Officer for the Pacific West Area, an Administrative Officer at Hilo, Hawaii, and served on a detail at the U. S. National Arboretum as the Administrative and Marketing Manager. We look forward to working with Bob.

Dr. Tom Jackson of the Hydrology and Remote Sensing Laboratory was named the ARS Senior Scientist of the Year and Dr. Jay Evans, Bee Research Laboratory, was the Beltsville Area Early Career Scientist of the Year. Dr. Jackson's work on soil moisture and remote sensing and Dr. Evan's work on bee genomics are reflective of the high caliber research at BARC.

We are expecting to move into our two new Human Nutrition buildings later this summer as well as the new Animal Biotechnology (B-230) building that was dedicated last October. Plans are being finalized for the construction of new greenhouses in Range 1. The extent of the construction will depend on the 2003 budget allocation. Right now monies are available to build a citrus quarantine greenhouse and a support greenhouse for our nearly completed containment greenhouse. We are also expanding our security installations. The dairy complex along Powder Mill Road will be fenced in and we are upgrading and installing new

proximity card controlled gates at various locales on BARC.

A very successful Area Distinguished Lecture Series was started last September. To date, Dr. Roger Beachy, President, Danforth Center in St. Louis; Dr. Peter Raven, Director of the Missouri Botanical Garden; Dr. Morse Solomon, Research Leader of out Food Technology and Safety Laboratory, and Dr. May Berenbaum, an entomologist from the University of Illinois and member of the National Academy of Sciences, have presented highly interesting seminars at BARC.

In late February, Dr. Joan Lunney, Research Leader of the Immunology and Disease Resistance Laboratory, will speak on "Using Immunology and Genomics to Improve Swine Health" and, in April,Dr. Autar Mattoo, Research Leader of the Vegetable Laboratory, will be the speaker.

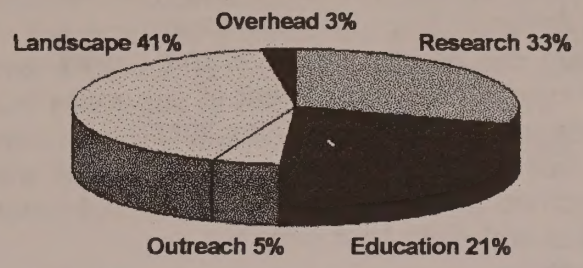
On April 15, BARC will be presenting its second Technology Showcase in cooperation with TEDCO (the Maryland Technology Development Corporation) and the Prince George's County Economic Development Corporation. This year's showcase is "BioSceince for Today and Beyond: Innovative Technologies for a Growing World."

Phyllis Johnson,
Director

FAR-B and CFC

The Friends of Agricultural Research-Beltsville, Inc. (FAR-B) is in its third year of participation in the *Combined Federal Campaign* (CFC) of the National Capital Area (*designation number 7991*). Last year we were able to raise about $8,000 to support the research, educational and outreach programs at Beltsville Agricultural Research Center. CFC funds have become a major source of income. We are asking for your help again this year. The surrounding community also benefits from the Center's activities. For the first time, we are asking our neighboring Federal agencies that work at Beltsville to contribute to our campaign. Protecting the "Green Way" that extends from BARC to the Patuxent Wildlife Center is an important local ecological resource. We have in the past, and continue today, to resist any development of this property. Our Focus group advises Congress on the need to maintain a strong program at the Center. Last year, we had to commit a large percentage of our budget to repair damage caused by the 2001 tornado.

2002 FAR-B Expenses



FAR-B is an all-volunteer organization with no paid employees. We return 97 cents of every donated dollar to support the Beltsville Agricultural Research Center. We should know by early March 2003 what funds should be available to us from CFC.
—Phil Kearney, CFC Chairman

Membership and Dues

FAR-B membership remains strong. Currently, we have 200 members. We are grateful for the support of all our members. January marks the beginning of our 18th membership year. Please remember to renew for 2003. Some members have already mailed in their dues, and we thank them. Individual reminders were mailed in early February.

Membership dues are one of our main sources of review. We rely on your support to carry out our commitments. Dues for 2003 remain at $20 for Personal Members; $10 for Associate Members (USDA employees); $100 for Patrons; and $500 or more for Sustaining Members.
--Janet Ferst, Membership Chairman

The Area Director's Distinguished Lecture Series

On Friday, January 31, 2003, Dr. May R. Berenbaum, Chair, Department of Entomology, University of Illinois, Urbana, IL, spoke on the topic of "Insects-- Aliens from the Planet Earth."

In her lecture, Dr. Berenbaum said that as far as most people are concerned, insects are as different from humans as an organism can be and still be of this planet. They have an embarrassment of appendages, a basic body plan that's inside-out and upside-down from a human perspective, and they have adopted lifestyles and diets that defy the imagination.

In reality, however, insects and humans share remarkable similarities and in many cases it is these similarities that give rise to the perceived hostilities, as well as, to many unrecognized partnerships. The study of insects and of their interrelationships with their environments can imbue us humans not only with greater tolerance but also with greater insights into our own lives.

Entomologist May Berenbaum is internationally known for her contributions to the field of chemical ecology. She specializes in the chemical interactions between herbivorous insects and their host plants, and the implications of such interactions on the organization of natural communities and the evolution of species. Dr. Berenbaum has also written several popular books, including *Buzzwords: A Scientist Muses on Sex, Bugs, and Rock 'n' Roll*, and the award-winning *Bugs in the System: Insects and Their Impact on Human Affairs*.

Some of Dr. Berenbaum's awards and honors include the Swanlund Chair, the highest endowed title at the University of Illinois; the E. O. Wilson Naturalist Award from the American Society of Naturalists; the Silverstein-Simeone Award from the International Society for Chemical Ecology and the Founder's Award from the Entomological Society of America. She is a member of the National Academy of Sciences. She has also been elected a fellow of the American Academy of Arts and Sciences, the American Philosophical Society, and the American Association for the Advancement of Science.
--Vern Pursel, Treasurer

Invitation of Members of FAR-B

FAR-B's fourth annual version of the Beltsville Invitational--the group's premier community outreach activity--will take place on Friday, April 25, 2003 in the conference facility of Building 005.

This year, attention will again be focused on the three dozen or so students from the science and technology program at Eleanor Roosevelt High School in Greenbelt. They volunteer roughly half their school time to laboratories scattered throughout BARC, helping their mentors with projects which are often significant to ARS research.

The students generally encapsulate their work in science-fair-type-displays, which will be on display in Building 005 the day of the event from 10 a.m. to noon.

Following a catered luncheon and closing ceremonies, the day will culminate with tours of the "Beltsville Nobody Knows,"

conducted by staff members of ARS' National Visitor Center (NVC).

For further information about the Fourth Annual Beltsville Invitational, please contact the chairman of FAR-B's Community Outreach Committee, Charles Dickson. Voice: (301) 577-6645 or e-mail: c.h.dickson@att.net.

FRIENDS OF AGRICULTURAL RESEARCH--BELTSVILLE, INC.
P.O. Box 1061
Beltsville, Maryland 20704-1061

January 15, 2003

Senator Arthur Dorman
11107 Montgomery Road
Beltsville MD 20705

Dear Senator Dorman:

The Maryland State Legislature will convene this month without you for the first time since 1965. The legislative body quite literally will no longer be the same, though we know the legislative process will go forward. We are confident that Beltsville will continue to receive first-rate representation, though never more successfully, nor more effectively, nor more thoughtfully than when you were Beltsville's very own state Senator.

At the January meeting of the Friends of Agricultural Research-Beltsville (FAR-B) Board of Directors, the Board voted unanimously not to allow this occasion to pass without expressing our appreciation and commendation for your long and faithful service to the Beltsville Agricultural Research Center, to the larger community, to the state, and indeed to the nation.

Those of us who have been here long enough to retire hold vivid recollections of your tireless efforts on our behalf. Younger employees and current managers are well aware of your support as well. Perhaps the one circumstance that stands out most strikingly is your powerful contribution to protecting BARC against a misguided, but high-level initiative several years ago to close the facility.

Our membership is composed principally of retired BARC scientists and managers, current BARC employee associate members, and a number of private firms and individuals who have a particular interest in BARC. We carry out a number of activities to support BARC including, educational outreach to the public and local schools, sponsorship of the Director's Distinguished Lecture series, and annual witness testimony to the Congress to support appropriations for BARC research. We are gratified that we were able to raise several thousand dollars in donations and plant materials to help restore the BARC landscape and grounds near Route 1 that were severely damaged during the September 2001 tornado.

Senator Dorman, we wish you well with whatever interests and pursuits the future may hold for you. You may rest assured that you have left a legacy to your community and to the Beltsville Agricultural Research Center. We thank and commend you for those extraordinary contributions.
Sincerely,

James O. Butcher
Legislative Liaison, FAR-B

Former Professor Named BARC Plant Sciences Director

Back in the 1970s, the Beltsville Agricultural Research Center went through one of those transforming organizational makeovers that U. S. Government institutions experience from time to time.

A new organizational plan was drawn up for the nation's flagship agricultural research center. New management hit on the idea of modeling Beltsville after the venerated National Institutes of Health. A key component of the plan was to appoint institute directors whose distinguished accomplishments would lend instant credibility to the institutes. Though the designers of the plan have long since gone into retirement, the spirit remains in place today—design well-organized research institutes led by great scientists-managers.

Beltsville's newest institute director is Dr. Wanda Collins. When the directorship of the Plant Sciences Institute became open a couple of years back, a far-ranging search went into action to find the best-qualified scientist-manager to fill the vacancy. After months of sifting through applicants, Dr. Collins stood out as the best candidate. She agreed to relinquish her high-profile position as Deputy Director General for Research at the Center for International Potato Research in Lima, Peru, to take up the Plant Sciences Institute directorship at Beltsville.

Academically, Dr. Collins has the virtually unheard of distinction of holding two masters degrees and two doctorate degrees. One set of masters-doctorate degrees is in plant pathology. A second set is in plant genetics. She is quick to point out how these specialized study areas merge to complement her own research interests.

For 17 years, she was a research professor at North Carolina State University, where she dedicated her work principally to improving disease resistance and overall quality of sweat potatoes. The Tarheel state grows more sweet potatoes than any other U.S. state. Yet, 99 percent of world sweet potato crop is grown outside of the United States--chiefly in Africa, China, and Latin America. To pursue her work on sweet potatoes, she soon discovered the need to reach out to a worldwide network of international collaborators. It was that international collaboration that led to the next stages of her career.

By 1994, the U.S. Agency for International Development was calling on Dr. Collins to take a one-year leave of absence from the university to serve as a science advisor at the World Bank. She would provide scientific liaison between U.S. universities and agricultural research centers around the world--chiefly to that special group of International Research Centers that is generally credited with generating the famous "Green Revolution." A year later, she left the university permanently to assume the position of Agricultural Research Advisor for the World Bank.

In 1997, the International Potato Center (better known by the Spanish acronym, CIP) enticed Collins to leave the World Bank for the prestigious position of Deputy Director General for Research. Headquartered just outside Lima on Peru's coastal plains, CIP works to reduce poverty and improve food security with programs on potatoes, sweet potatoes, and other root crops. Another goal is better natural resources management for the Andes and similar regions of the world. Besides the coastal location, CIP operates a research station in the high Andes (average height about 12,000 feet), and another in the vast tropical rainforest that slopes eastward toward Brazil and the Amazon Basin.

Dr. Collins likes to talk about CIP. Clearly, she enjoyed her duties at CIP and remains committed to its humanitarian mission. The potato--for which CIP is named--is native to the South American highlands. It has been consumed there for over 8,000 years. At times, it has been variously blamed for everything from lust

to leprosy. Spanish conquistadors first took potatoes to Europe in the 1500s. The crop adapted well to the European climate and soon became a food staple. As legend has it, potatoes first arrived in North America in the form of a gift from the governor of the Bahamas to the governor of Virginia, both then British colonies.

Today, everybody knows potatoes, our most popular vegetable. It appears in everything from fries to doughnuts. But not everyone knows that a single medium-sized potato contains half the daily adult requirement of vitamin C. Move over, orange juice.

Sweet potatoes are CIP's second major crop plant. Over 95 percent of the global sweet potato crop is produced in developing countries, where it is the fifth largest food crop. Scientists believe that sweet potatoes were domesticated in the Americas more than 5,000 years ago. CIP's sweet potato germplasm collections count over 6,500 samples from every imaginable source.

But the most fascinating of CIP's germplasm collections may be a group of ancient, threatened root crops that have only recently been re-discovered and described in a book entitled *The Lost Crops of the Incas*. CIP has launched an emergency program to rescue nine such species. Known in the Quechua Indian language as *achira*, *ahipa*, *arracacha*, *maca*, *mashua*, *mauka*, *oca*, *ulluco*, *yacón*, these crops are economically and nutritionally valuable to subsistence Andean farmers. They often are used as substitutes for expensive fruits and vegetables. They also have immense potential to become viable export crops. Uses include *oca* and *achira* as starches, *arracacha* as a baby food, and *yacón* in a sweetener for people with diabetes. At least two crops are thought to have strong influences on human sexuality.

But in 2001, when the call came to lead the Beltsville Plant Sciences Institute, Dr. Collins elected to accept this as her newest challenge of her remarkable career.

She now directs 13 laboratories that use fundamental and applied research to solve national and regional problems. The institute employs approximately 135 scientists/support scientists and 204 supporting staff at Beltsville. At the close of an interview, Dr. Collins succinctly summed up one basic motivation for becoming plant sciences director. She said, "Because I like to help people."
-- Jim Butcher, Legislative Liaison

In Memorium

Secretary Ann M. Veneman asked that we share with USDA employees the sad news that former Secretary Dick Lyng passed away on February 1, 2003.

The following is a statement issued by Agricultural Secretary Ann M. Veneman, highlighting his remarkable career and life.

On the Passing of Richard E. Lyng, U.S. Secretary of Agriculture, 1986-1989.

Today, we are deeply saddened to learn of the passing of Dick Lyng, who served this nation as Secretary of Agriculture during the administration of President Ronald Reagan.

Secretary Lyng was a visionary leader in agriculture who works passionately on behalf of this nation's farmers and ranchers. He was a friend, a mentor and a person of great integrity whose insight, candor and wisdom will be sorely missed.

I join the entire USDA family and agriculture community throughout the

nation in offering our deepest sympathies and prayers to the entire Lyng family--particularly, his daughters and grandchildren.

Secretary Lyng shared many friends and colleagues and touched the lives of so many people. Today, while we mourn his loss, we also celebrate a remarkable man and an inspiring life journey.

News From the National Visitor Center

In fiscal year 2002, the USDA-ARS National Visitor Center (NVC) staff hosted about 17,000 visitors on 523 tours. Visitors included people from all walks of life, including domestic and overseas dignitaries and educational, federal, and media groups.

NVC continues to be inundated with an unusual number of very high-level delegations from all over the world. Hosting high-level delegations has become a routine of sorts for the NVC staff. Staff members were personally invited and attended diplomatic events at embassies and ambassadors' homes in appreciation of NVC programs.

Some of this year's tour program highlights include the following: the Princess of Jordan; ambassadors, first secretaries, minister counselors and Ag attaches from numerous countries plus fifty foreign Ag attaches and counselors for NVC's biotechnology forum.

Extensive program tours were setup for many countries and their scientific delegations; for example, Kenya, Laos, Madagascar, Malaysia, Mexico, Morocco, Mozambique, Namibia, New Zealand, Nigeria, North Africa, Pakistan, Palestine, Panama, Philippines, Poland, Iceland, Republic of Montenegro, Republic of Georgia, Romania, Russia, Scotland, Slovenia, Republic of South Africa, South Korea, Sri Lanka, Switzerland, Taiwan, Tanzania, Thailand, The Netherlands, Turkey, Uganda, Ukraine, United Kingdom, Vietnam, West Africa, Yugoslavia, Zambia, and Zimbabwe.

About 90% of the Log Lodge is now "well preserved" thanks to the preservation project conducted by the National Park Service. The project is funded by the ARS Administrator and coordinated by BARC's Engineering and Planning Section of the Facilities Management and Operations Division. Interesting photos and history are available at the following web site: http://www.barc.usda.gov/fmod/loglodge/
--Jay Green, Scientific Information Specialist, National Visitors Center

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FIRST CLASS

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Beltsville MD 20705-1061

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— Dedicated to promoting the research and education programs of the Henry A. Wallace Beltsville Agricultural Research Center, Beltsville, MD —

THE FAR-B NEWS

June 2003 *Editor: Hank Becker*

President's Message

Dear Friends and Colleagues,

The 17th annual meeting of Friends of Agricultural Research - Beltsville was held on May 13 in the main auditorium of the Henry A. Wallace, Beltsville Agricultural Research Center. Our quest speaker, Dr. Joseph J. Jen, Under Secretary for Research, Education, and Economics, USDA, highlighted the meeting. Dr. Jen elucidated some of the current problems facing agriculture and certainly provided ideas and motivation for the research staff at BARC for meeting these challenges in the 21st century. Dr. Phyllis Johnson, whose comments are included below in this newsletter, summarized some of the issues facing BARC.

Dr. Joseph J. Jen
Undersecretary for Research, Education and Economics, USDA

At the meeting, the status and activities that currently face FAR-B were reviewed as follows: Membership Chair, Janet Ferst, reported that our membership continues to hover around 200. Roughly half of our members are retirees and the remaining halves are non-voting associates who are BARC employees. We are grateful to our Sustaining Member, Pioneer HyBred International.

Vern Pursel, our new Treasurer, submitted a budget for 2003, which has been approved by the Board. Our projected income will be nearly $23,000, which will be utilized for research, education, outreach and administrative activities. The administrative costs consist of printing and postage for the FAR-B Newsletter.

Phil Kearney, chair of the Goals and Objectives Committee, also serves as our Chair for the Combined Federal Campaign (CFC). As you may know, Phil was chiefly responsible for making FAR-B eligible for CFC contributions a few years ago. As a result, in 2003 FAR-B will receive about $6,000 from contributors who designate our organization on the CFC forms. We thank those of you who participate in this way and ask that you continue to remember us during future campaigns.

Although FAR-B did not sponsor any major symposia this past year, we continued to assist with smaller workshops and lectures. During the past year, we helped to sponsor the 6th Interbull Technical

Workshop, which had 65 Registrants from 21 countries. In addition, we extended our assistance to Kearneysville, WV, for the Plum Pox Eradication Control Workshop and are providing support for the Distinguished Lecture Series that Dr. Johnson initiated this past year.

To help support research programs at BARC, Jim Butcher, our Legislative Liaison, assembled testimony for the appropriate Subcommittees on Agriculture in the US Senate and the US House of Representatives. FAR-B emphasized two areas for funding this year.

The first was funding for a Center of Systematics. This program would be in partnership with the University of Maryland and the Smithsonian Institution's National Museum of Natural History. The Center would centralize the vast taxonomic collections that are spread out among the three institutions.

The other area we emphasized was restoration of the Congressional "add-ons." These were high-priority research areas mandated by Congress in the 2001, 2002, and 2003 budgets but are scheduled to be deleted in the President's proposed 2004 budget. About 10 different areas of research would be adversely affected by discontinuing these programs. We owe Jim a depth of gratitude for assembling the documentation that was required for his efforts.

In addition to these activities, FAR-B assisted with the BARC Poster Day and other outreach activities organized by Charles Dickson and we completed the landscaping program that was initiated in 2002. We estimated that $40,000 to $50,000 of nursery stock was acquired and planted at BARC-West. This activity attempted to repair the damage wrought by the 2001 tornado.

For the coming year, the Board has approved an Innovative Ideas Program, which was proposed by Ralph Bram. This program will provide seed money ($1,000.) for new, innovative projects in a laboratory or management unit where adequate federal funding is not currently available. The Board is currently soliciting proposals for this program.

In addition, we are discussing a Scholarship /Educational Assistance Program for college students that would be consistent with the goals of FAR-B and complement research programs at BARC.

If you have thoughts on other activities that you would like the Board to consider, we would be pleased to hear from you.

Our annual meeting adjourned after Mort Beroza, Chair of the Nominations Committee, reported that the Board had no vacancies at this time; consequently elections were not necessary.

With this summary, I look forward to your continued support and comments.

Sincerely,

William P. Wergin, Ph.D.
President

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Area Director's Message

Water, water everywhere but not.... I guess we are all getting a bit tired of the rains--particularly those that seem to start Friday and end Monday morning! Even with a rainy Saturday, the annual BARC Public Field Day was held and, all things considered, was a resounding success. Although the crowds were lighter, the spirit and participation by BARC employees was at an all time high.

FAR-B also had a booth at Field Day, and we hope this becomes an annual activity.

The BARC Public Field Day

BARC has set another bench mark; winning its third consecutive White House Closing the Circle Award for its use of bio-based products. The White House Office of the Federal Environmental Executive presents these annual awards. There are Executive Orders mandating the use of environmentally preferable products and the 2002 Farm Bill mandates that the USDA develop a program for bio-based products procurement. In the past, BARC has received Closing the Circle Awards for our Biodiesel Demonstration (2001) and Environmental Management Program (2002).

BARC also received two individual and one team USDA Secretary's Honor Awards. Thomas Jackson from the Hydrology and Remote Sensing Laboratory received a Plow Honor Award for leading research to develop soil moisture remote sensing technology, resulting in new satellite observing systems for global monitoring of critical information for agriculture and climate.

Mary Ann Jarvis, Education and Visitor Services Unit at US National Arboretum, was honored for creating a volunteer program that serves as a model for the Agricultural Research Service and that annually provides thousands of volunteer hours.

A Team Award was presented to Rena Cutrufelli, Vincent de Jesus, David Haytowitz, Joanne Holden, Linda Lemar and Robin Thomas of the Nutrient Data Laboratory. The team was cited for providing the American public with easy access to USDA's food composition data through personal digital assistants, personal computers, and web-based National Nutrient Database search applications.

The Beltsville Area Distinguished Lecture Series continues to attract speakers from outside and inside BARC on a wide range of topics. Four speakers have presented talks since the last FAR-B Newsletter.

Dr. Joan Lunney from BARC spoke on "Using Immunology and Genomics to Improve Swine Health." Dr. Yoram Kaufman from NASA presented "A Satellite View of the Effect of Smoke and Air Pollution Aerosols on Weather and Climate," and Dr. Autar Mattoo from BARC talked about "Two Short Stories: Plant Clocks and High-Lycopene Tomatoes."

Lastly, on the same day as the FAR-B annual meeting, Dr. Kathie Olsen, Associate Director of the Office of Science and Technology Policy, Executive Office of the President, spoke on "Careers in Science: These Times Are A' Changin."

In early May, it was announced that a significant number of Federal positions at BARC would be under the Competitive Sourcing initiative that is one of the President's Management Initiatives. The affected positions include our security unit, and most of FMOD, a total of almost 300 positions.

Competitive Sourcing, briefly, is a process where the in-house positions are competing against outside contractors; the entire process can take up to 18 months to complete. We are currently organizing the required teams to begin the process and have the assistance of outside contractors in understanding and getting though the process.

In closing, we are looking forward to the ideas that emanate from FAR-B's new initiative: The Innovative Idea Award. And, as always, appreciate the support that FAR-B provides to BARC.

Phyllis Johnson,
Director

The FAR-B Innovative Idea Award

To: All BARC Employees
From: Friends of Agricultural Research - Beltsville, Inc.

The Friends of Agricultural Research - Beltsville, Inc. (FAR-B) invite you to participate in a new program called The Innovative Idea Award. This program is open to all BARC employees. $1,000 seed money will be provided by FAR-B to initiate work on new, innovative projects for which there are no immediate Federal funding. It is envisioned that, when an innovative idea shows particular promise, its further development would be supported by base funding from BARC.

Applications will be considered in any one of four categories: (1) Scientific (a novel, untested scientific theory); (2) Technical (a new or modified technique for use in research); (3) Administrative (a practical improvement of an administrative procedure); and (4) Grounds and Maintenance (a better way of carrying out grounds and maintenance responsibilities).

All applicants should submit a free form proposal not to exceed two pages briefly explaining the problem and an innovative idea for its solution. In addition, the proposal should include a statement from the applicant's first line supervisor agreeing to the request.

Applications should be sent to:
Dr. William P. Wergin, FAR-B. Inc.
PO Box 1061, Beltsville, MD 20704-1061

Awardees and their projects will be recognized in the FAR-B News, at the FAR-B Annual Meeting, and their Management Unit will be encouraged to also make appropriate recognition.

Ralph Bram,
Vice President

Engineer Tom Jackson Named Distinguished Senior Research Scientist Award for 2002

Within a few years, we may have daily newscasts that accurately predict floods in their infancy as well as droughts and tornadoes and hurricanes. We'll have advance warning of the kinds of crippling storms that buried Beltsville in snow this past winter. That is, if the research of the Beltsville Agricultural Research Center's Tom Jackson and his colleagues come to fruition.

USDA's Agricultural Research Service (ARS) recently named Jackson, a civil engineer and expert on remote sensing in the Hydrology and Remote Sensing Laboratory, Distinguished Senior Research Scientist of 2002. It is the top scientific honor given by the research agency.

"Tom Jackson has engaged in groundbreaking research with NASA and ARS for 25 years. In fact, if a country has a satellite, you can almost be certain that Jackson is the primary researcher for the soil-moisture sensing equipment on that satellite," said Acting Administrator Edward B. Kipling, Jr. at the Secretary's Annual Honor Awards.

In a larger sense, the essence of Jackson's work is about climate forecasting. Jackson believes Beltsville's recent monster snows trace in no small measure to the effects of El Niño--an event that reoccurs three times or so a decade when waters warm off the Pacific coast of South America. The term (Spanish for "the Christ Child") refers to a warm ocean current that typically appears around Christmas-time and usually lasts for several months. (A cold phase called La Niña, for the female child, or El Viejo, for the old man, may have consequences of equal or greater importance than El Niño.)

Past El Niño events have dramatically affected global weather. Droughts (sometimes with associated wildfires) have struck many nations--particularly in the western Pacific Rim, southern and northern Africa, southern Asia, southern Europe, and parts of South and Central America. Severe cyclones have damaged Pacific island communities. Floods have inundated parts of South America, Western Europe, and the U.S. Gulf Coastal states. Severe storms have battered the western and northeastern United States.

What do warming equatorial ocean currents have to do with remote sensing of soil moisture measurements? The answer to that question is somewhat complicated, according to Jackson. He thinks that shifting surface temperatures over continental landmasses may influence global weather patterns in a manner similar to shifting sea temperatures. Moreover, if we can learn to understand the combined climatic effects of shifting land temperatures and shifting sea temperatures, we can vastly improve the accuracy of short-term and long-term weather forecasting.

That's why Tom Jackson's sensors and equipment for measuring soil moisture from space may hold so much significance for the future of weather forecasting. If we could measure land surface temperatures and soil moisture as well as we measure sea surface temperatures, forecasting would be a lot easier. Unfortunately that capability isn't easily available to us. But the good news is that Tom Jackson's soil moisture measurements are leading the way to making these forecasts possible.

Jackson has adapted soil-moisture sensors and antennas for satellites and developed methods for using them to measure soil moisture over large landmasses. Once airborne, rapidly spinning 20-foot-

diameter sensing dishes will record natural microwave emissions from the land surface. Those spinning satellite dishes are the secret to accurate soil moisture measurements from space, says Jackson.

Jackson carries out a good deal of his remote sensing work with scientists at the NASA's Goddard Space Flight Center. Presently, they are focusing on data from two orbiting NASA satellites. One satellite, "Aqua," monitors the planetary water cycle; a second, called "Terra," monitors land. Jackson looks forward with eager anticipation to the launch of a third NASA satellite that would be called "Hydros."

He emphasizes that Hydros is still in the proposal stage under a NASA program called "Mission to Planet Earth." If all goes as hoped, the Hydros satellite would go up within the next 5 years. It would be well supplied with Jackson-developed sensors for measuring soil moisture content

The potential weather forecasting applications from this research are enormous. Not only would we know what kind of weather to expect for a current day, we would know much more accurately what weather to expect the following day, and the following week, and the following season, and the following year.

Farmers and home gardeners will be able to plan more accurately for seasonal crop irrigation. School systems can more accurately predict the number of snow days to allow for when planning a school year. Municipalities can more accurately predict how much salt or snow removal equipment they may need. Managers of large watersheds can plan ahead for anticipated floods and, their opposite, drought.

Tom Jackson lives in Ellicott City. He is the author or co-author of over 200 scientific publications. He is a fellow of both the Institute of Electrical and Electronics Engineers (IEEE) and the American Geophysical Union. In 1999, the National Society of Professional Engineers named Jackson the Agricultural Research Service Engineer of the Year. He holds three engineering degrees from the University of Maryland, culminating in a doctoral degree in Civil Engineering.

Jim Butcher
Legislative Liaison

In Memoriam

Bill Raney

On January 30, 2003, Dr. Bill Raney died in a fire at his home in Cary, Miss. His wife, Jane, escaped but their home was destroyed. Bill retired from ARS in 1980 and was a fellow of the American Society of Agronomy and the Soil Science Society of America.

Raney was born in 1921 in Meridian, Miss. He graduated from Mississippi State University (MSU) earning his BS and MS in agronomy. During World War II, he served in the South Pacific as captain of a PT boat in the same squadron as President John F. Kennedy. Following his discharge from the Navy, he attended Cornell University where he earned his Ph.D. in soil physics.

From 1950 to 1956, he taught and conducted research in the Agronomy Department at MSU. He then joined ARS at Beltsville, MD., where he filled a number of leadership positions until his retirement in 1980.

Raney oversaw the National Research Programs for ARS in the areas of Tillage Management and Water-Use Efficiency. These programs required that he know the programs and expertise of about 70 scientists. He also consulted with scientists nationally and internationally on many scientific topics. Raney was best known for his *Soil Physics Newsletter* that he sent to scientists worldwide. During his brilliant career, he received numerous awards and honors for his many contributions to both ARS and the science of agronomy.

Following retirement, Bill supervised the production of catfish from 1220 acres for Moore Planting Company near Cary. He spent considerable time with his family and they became the center of his life until his untimely death. His wife, three daughters, several grandchildren and five great-grandchildren survive Bill.

Those of us who were fortunate to have known Bill will remember his good humor and dedication to our Agency. Condolences may be sent to his wife, Jane, in care of their daughter: Rebecca Lamb, 407 Lincoln, Greenwood, MS 38930.

William H. Tallent

William H. Tallent of 813 West Side Drive, Iowa City, Iowa, formerly of Peoria, IL, died from cancer on Thursday, May 22, 2003 at his home. He was 74 years old. Born on May 28, 1928 in Akron, Ohio, to Othar and Agnes Johnson Tallent, Bill earned his bachelor's and master's degrees from the University of Tennessee and his doctorate from the University of Illinois.

He worked at the National Institutes of Health in Bethesda, Md., for 3 years. Next, he was a research chemist with G.D. Searle in Skokie before joining the Department of Agriculture. At ARS, he served in several positions at the National Center for Agricultural Utilization in Peoria, before becoming its director.

In 1983, he was transferred to Washington, D.C., where he served as Deputy Administrator for Agriculture for ARS's Northern Region and then as the first director of the ARS Office of Technology Transfer.

During his long and distinguished career, he received numerous awards, including the 1981 Distinguished Economic Botanist Award, a 1958 Presidential Rank Award, and a 1992 NASA Technology Award for Lifetime Achievement in Technology Transfer.

He was a member of the American Association for the Advancement of Science, the American Chemical Society, the Society of Economic Botanists and the American Oil chemists Society (AOCS). In 1988, he became editor-in-chief for the Journal of AOCS.

His wife, Joy Redfield, one son, two daughters, four grandchildren, and two brothers, survives him.

Memorials may be sent to the Iowa City Hospice, 1025 Wade St., Iowa City, IA 52240 or to the First United Methodist Church, 214 E. Jefferson St., Iowa City, IA 52245.

BARC and The Combined Federal Campaign (CFC)

This year the Combined Federal Campaign did a very thorough job of scrutinizing all participants in its annual giving campaign. CFC Board chairman Phil Kearney announced that he was pleased to inform the board that FAR-B was again approved for participation in this program.

Last year, 14 people revealed their names as participants of CFC and donated monies

to FAR-B. Many more participated. Last year, FAR-B received over $7000.00 from these donors. We would like to thank these people for their generous contributions. The FAR-B designation number is 7991. We would like to thank Phil Kearney for initiating this fund-producing activity.

Financial Report

FAR-B's financial footing remained solid throughout 2002. This was due in no small measure to more than $7,000 of income from the Combined Federal Champaign. As a consequence, we finished the year with income exceeding expenses by $3,732. The BARC Landscape Renovation was the major expenditure for the year and amounted to a total of $23,745 with $15,430 coming from donations by individuals and corporations.

The Board has approved a budget of $22,640 for 2003. Unfortunately, CFC contributions were lower in the 2002 Fall Campaign than in the 2001 Fall Campaign, so FAR-B's share for this year will decrease by more than $1,700. The planned distribution of these expenditures is 51% for Research, 35% for Education, 11% for Outreach, and 3% for Administration.

Vern Pursell
Treasurer

Membership Update

It is not too late to send in a renewal of membership in FAR-B for the year 2003. Dues for Personal Member remain at $20. Your past support has been greatly appreciated and we hope you can continue to support us so that we can fulfill the many requests for assistance from the Henry A. Wallace Beltsville Agricultural Research Center. You can mail dues to P.O. Box 1061, Beltsville, MD 20704-1061.

Janet Ferst
Membership

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FIRST CLASS

Friends of Agricultural Research-Beltsville, Inc.
PO Box 1061
Beltsville MD 20705-1061

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PO Box 1061, Beltsville, MD 20704-1061

— Dedicated to promoting the research and education programs of the Henry A. Wallace Beltsville Agricultural Research Center, Beltsville, MD —

THE FAR-B NEWS

January 2004 *Editor: Hank Becker*

President's Message

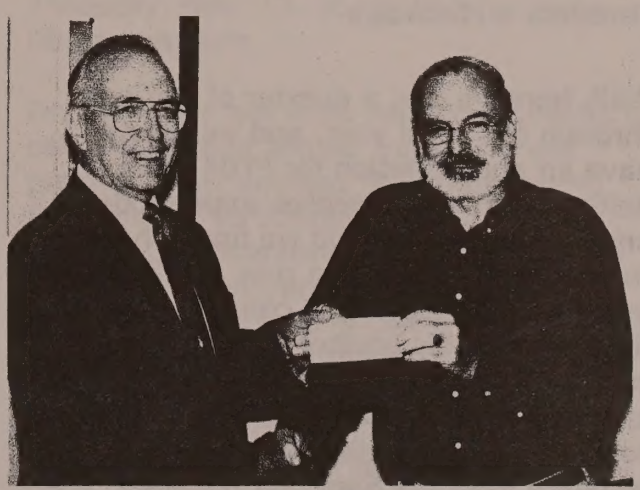
Dear Friends and Colleagues,

After a brief summer recess, the Board resumed its activities last Fall. One of the first items on the agenda was to evaluate proposals for the Incentive Awards program that Ralph Bram had introduced this past year. This program provides start-up funds for a unique idea submitted by scientists, as well as the support, clerical or grounds staff, that has potential to positively affect activities at BARC. The Board looks forward to some interesting and valuable submissions for this award this year. (See the article on Innovative Ideas on page 8.)

I am also happy to report that the Board also authorized funds to bid successfully on the "Blue Bird" that stood in front of the Visitors Center this past summer/fall. This bird, which was uniquely painted to reflect research activities at BARC, was the result of a public art's project sponsored by Prince George's County. The project culminated in auction that benefited arts in education in Prince George's County. The "Bird" will now become a permanent feature of the Visitor's Center where it can be viewed. (For more details on the Blue Bird, see the article from ARS Information Staff on page 5.)

In October, the Paul Putnam and his wife attended the Board meeting where they presented FAR-B with a check for $1,000.00 for the landscaping fund. The money resulted from sales of Paul's book, *Anecdotal History of the Agricultural Research Center at Beltsville*. For those who may still be interested in purchasing a copy, I believe that Paul still has copies available (emailpputnam@vermontal.net).

Dianne Odland from the ARS Information Products and Services Branch and Jim Butcher have been developing some community outreach programs. Dianne, who has had extensive experience in this area, is putting us in touch with science coordinators in the neighboring counties. And Jim has made contact with Bill Veater, principal of the Beltsville Academic Center. FAR-B hopes to develop a science club at the Center and take a more active role in supporting the many science fairs in our area.



Former Area Director Paul Putnam presents FAR-B President Bill Wergin, with a $1,000 check for the Landscaping Fund.

The FAR-B Board has had a couple of "face" changes. Charles "Hank" Dickson, Jr., who has been the Secretary and Chair of the Community Outreach Committee has recently resigned. We will miss Hank's unique sense of humor and staunch commitment to our goals.
In September, Darwin Murrell joined the Board. As a former Area Director at Beltsville and member of the National Program Staff, Darwin brings to the Board a vast background of knowledge and wisdom that surely will be most helpful in guiding the board in its future activities.

Nancy Thrush, who many of you know as "Nancy Nurse," retired after serving the health and safety needs of BARC employees for many years. We wish Nancy a happy retirement and will encourage her to become involved in future FAR-B activities.

As always, we appreciate any comments that our members may have concerning the activities of FAR-B. Please feel to contact me (wwergin@msn.com) or any of the other Board members.

Sincerely,

William P. Wergin, Ph.D., President

Board of Directors

President:	William Wergin *wwergin@msn.com*
Vice President:	Ralph Bram *rabram@rcn.com*
Treasurer:	Vern Pursel *vpursel@comcast.net*
Special Advisor:	Essex Finney
Membership:	Janet First *janetferst@aol.com*
CFC:	Phil Kearney *pkearney@asrr.arsusda.gov*
Symposia:	Morton Beroza *mhberoz@aol.com*
Legislative Liaison:	Jim Butcher *jim@bellatlantic.net*
Publicity:	Hank Becker HankBecker3@aol.com

Directors Emeritus:
Frank Longen—*flongen2@juno.com*
K. Darwin Murrell— *kdm@kvl.dk*

Beltsville Area

Area Director:	Phyllis Johnson
Associate AD:	Ron Korcak
AD's Representative:	Allan Stoner
Nat'l Visitor Center:	John Kucharski

Director's Message

Well, here we are, a quarter of the way through the fiscal year, and we finally have an appropriation for FY04. The Beltsville Area will receive some modest program increases, and we finally have the funds to construct a new poultry facility. The design was completed some time ago for this poultry facility, but construction funding in the FY02 appropriation was redirected to cover some of the costs associated with recovery from the Sept. '01 tornado. The poultry facility will be built at the corner of Poultry Road and Powder Mill Road. Barring any further catastrophes, we will break ground in the spring.

Our next priority will be to obtain funds to gut and rebuild Bldg. 307, which will be Phase III of the Human Nutrition project. Our scientists have now all moved into the two new buildings, 307A and B, which were dedicated in late August. If you haven't seen them yet, do drop in.
The dining room for human study volunteers is particularly nice, and the view of the beef pasture from the dining area is positively bucolic. The labs are truly modern, and orders of magnitude nicer than our old facilities. Once we get 307 renovated, we'll be able to move the rest of the human nutrition people from

around our campus into it, and the entire staff of BHNRC will be housed within one complex for the first time in decades.

As part of ARS's 50th anniversary year, we had a National Scientific Leadership Conference in New Orleans in late January. This was the first national leadership meeting since 1990. It included many early career scientists as well as RLs. The theme of the meeting was "Proud Past and Promising Future." Our early career scientists enjoyed the opportunity to meet many of our Hall of Fame members and other accomplished scientists. We were all energized by some lively and provocative futuring sessions on topics such as robotics, nanotechnology, globalization of agriculture, demographic changes, and farming when water is scarce.

These presentations were webcast to ARS staff around the country who were unable to join us in New Orleans. They are available with audio and Power Point slides on the ARS website along with other stories about our 50th anniversary. Over the coming months, we'll be following up on some of the insights from the futuring discussions and thinking about how ARS might be the same or different in the next 50 years.

The vacancy for the ARS Administrator's position was announced last fall, and re-announced again in December. As of yet, we don't know who is on the cert, and nobody knows when interviews will be done or a selection made. We'll keep you posted if there is any news. -- **Phyllis Johnson**, Director

Contributions To FAR-B Through CFC Now Available On-Line

As we start a New Year, FAR-B wants to thank all of those people who made donations to the 2004 Combined Federal Campaign on our behalf. These funds will be used to support educational and research programs at the Beltsville Research Center. We will not know the exact amount contributed to FAR-B until February. Whatever the amount, we deeply appreciate your support of our programs, and look forward to working with you again this year.

The 2004 CFC application process will go on-line for the first time this year. On-line preparation of the application forms will improve the quality of data CFC collects and assist in their screening process. We will be able to access the CFC site in early January and file our data starting March 1, 2004 through April 1, 2004. The addition of the on-line application will allow us to securely enter data directly and speed production of the database that drives contributors decisions during the fall campaign. FAR-B will be able to choose a unique login key. The on-line file can be saved and modified until it is submitted to CFC. -- **Phil Kearney**, CFC Chairman.

Beltsville Area Distinguished Lecture Series for 2003-2004

Dr. Keith Campbell, University of Nottingham, delivered the first Beltsville Area Distinguished Lecture of 2003-4 on Thursday, Nov. 13. at 10:30 a.m. in the 003 auditorium.

Dr. Campbell has wide-ranging interests in cell biology and animal traits. He will present a talk entitled "Reprogramming the Genome for Animal Production and Cellular De-differentiation." Dr. Campbell is a cell biologist/embryologist working primarily in the field of cell growth and differentiation. He attended Queen Elizabeth College London where he obtained a BSc (Hon's) in Microbiology. In 1983 Dr. Campbell was awarded the Marie Curie Research Scholarship, which he used for graduate studies on cell growth and differentiation at the University of Sussex, where he received a

D.Phil. Dr. Campbell joined the Roslin Institute in 1991 where he applied his previous experience to the production of mammalian embryos by nuclear transfer.

In 1995 this research led to the birth of 'MEGAN' and 'MORAG', two Welsh Mountain lambs. These were the first mammals to be 'cloned' from cultured differentiated cells (*Nature* 380:64-66, 1996). In 1996 these experiments were repeated and extended resulting in the birth of 'DOLLY', the first mammal to be 'cloned' from an adult derived somatic cell (*Nature* 385: 810-813, 1997).

The aims of all of these studies were twofold--first to understand the basic mechanisms underlying cellular differentiation and second to provide a means for the precise genetic modification of farm animal species. Dr. Campbell, now Professor of Animal Development at the University of Nottingham, continues to research the basic mechanisms underlying development and differentiation using transgenic animals as models for this research and pursues interests in therapeutic stem cells and the cell cycle.

If you have questions about Dr. Campbell's visit please contact Bob Wall (bobwall@anri.barc.usda.gov) or Jay Evans (evansj@ba.ars.usda.gov).

Future Speakers in the series:

Dr. Russ Greenberg (Smithsonian) "Sustainable Agriculture and Bird-friendly Coffee", on Feb. 26, 2004.

Dr. Gurdev Khush (IRRI and UC-Davis) "Feeding the World in the 21st Century" on April 27, 2004.

Dr. Claire Fraser (TIGR) "Applied Genomics" on June 3, 2004.

Everyone is invited and encouraged to attend.

In Memoriam

Dr. Glen VandenBerg

Dr. Glen VandenBerg passed away on Friday, September 12, 2003.

Glen spent many years at BARC as an engineer and completed his career working in the Modernization Office on a detailed plan for the future of BARC modernization projects.

He wrote several articles like "Soil Dynamics in Tillage and Traction" with William R. Gill. It became a basic reference tool for agricultural engineers. He later received his profession's highest honor, the Cyrus Hall McCormick Gold Medal.

He became a regional administrator for BARC and directed its Sensors and Control Systems Institute. In 1987, he served on an agricultural mission to China and Tibet. And before retiring in 1995, he planned for the detailed modernization of the Beltsville Center. VandenBerg also was a consultant on the rover used on the Moon.

A native of South Dakota and a graduate of South Dakota State University, Vanden Berg served on the board of the Engineering Workforce Commission, which monitors engineering education programs and on the board of the American Association of Engineering Societies. He also belonged to Phi Kappa Phi social fraternity.

His funeral was held on September 19, 2003 at 11:00 AM at the Colesville Presbyterian Church, 12800 New Hampshire Ave., Silver Spring, Md.

Dr. Mary Eddie Carter

Dr. Mary Eddie Carter, 78, of Americus died on Saturday, Sept. 6, 2003, at Sumter Regional Hospital, Americus, Ga.

Dr. Carter was a native of Sumter County, Ga., and the daughter of the late Walker G. and Mary Esther Stewart Carter.

Graveside services were held at 3 p.m. Monday, September 8, 2003, at Oak Grove Cemetery with the Rev. John Bagwell officiating.

Dr. Carter was a graduate of Schley County High School, and had received a bachelor's of arts degree from LaGrange College in LaGrange, her master's of science degree in organic chemistry from the University of Florida, in Gainesville, and her doctorate in chemistry from the University of Edinburgh, Scotland. She was the first U.S. woman to be awarded the university's doctoral in chemistry. She began her career in private industry at West Point Mills, West Point, and Calloway Mills in LaGrange.

She was a research associate with American Viscose Division of the F.M.C. Corp., Phila., Pa., before being appointed director of the USDA Textile and Clothing Laboratory, Knoxville, Tenn., in 1971. During her tenure in Knoxville, she was professor of chemistry on the graduate faculty at the University of Tennessee.

In 1973, she was appointed director of the ARS Southern Regional Research Center, New Orleans, La. She was the first woman director of any of USDA's 29 centers. Dr. Carter later became associate administrator of USDA's ARS, Washington, D.C. The first and only woman to hold that position. She retired as the director of ARS's South Atlantic States and the Caribbean, overseeing the research of 53 research units in five states, Puerto Rico and the Virgin Islands.

Dr. Carter holds many patents and published two books, *Chemistry in the Finishing of Fiber*, and *Essential Fiber Chemistry*. She was named among the top women chemist in the United States, a two-time winner of the Presidential Rank Award for federal executives and the Herty Award from the Georgia section of the America Chemical Society. Dr. Carter was a fellow in the organization's cellulose wood and paper division and a fellow in the American Society for the Advancement of Science. She was also a member of the University Woman's Club, Daughters of the American Revolution, and a member of the First United Methodist Church of Athens, Ga. She was an avid worldwide traveler.

Memorial contributions may be made to the League of the Good Samaritan C/O Magnolia Manor, 2001 S. Lee St., Americus, Ga. 31709.

FAR-B Donates "Blueberry Bird" -- Honors USDA Blueberry and Strawberry Breeding

The National Visitor Center of the Agricultural Research Service got an early holiday present. A bluebird, five feet tall, with a large strawberry on its white chest and blueberries on its head, now perches inside the visitor center located in Beltsville, Md.

The gift is partly a "thank you" honoring the late Larry Zeleny, an ARS biochemist who spent his retirement saving the bluebird from extinction. FAR-B, an organization of current and retired employees of ARS' Henry A. Wallace Beltsville Agricultural Research Center (BARC) successfully bid $550 for the fiberglass sculpture at a November auction to benefit art education in Prince George's County, where BARC is located.

The bird, named "Red, White and Blueberry Bird," is one of 74 whimsical versions of the eastern bluebird recently displayed throughout the county. All the birds were produced through a public art project, "Birds I View," modeled after exhibits such as the "Party Animals" in

Washington, D.C. The "Birds I View" project (http://www.pgparks.com/birds-i-view) was organized by the Maryland-National Capital Park and Planning Commission and the Prince George's Arts Council.

"Red, White and Blueberry Bird" was designed by Maryland artist Nancy Gurganus. The blueberries and strawberry symbolize the bird's blue and red colors and the berries the birds eat, while also honoring ARS' historic blueberry and strawberry breeding programs.

Head of the BARC National Visitor's Center, John Kucharski, accepts the Bluebird as a donation from FAR-B's President, Bill Wergin.

Since 1911, about one commercial blueberry variety a year has been developed from plants bred by U.S. Department of Agriculture scientists at what is now the ARS Fruit Laboratory in Beltsville and its satellite location in New Jersey. Strawberry breeding began in 1910. ARS and university fruit breeders in other states also contribute to blueberry and strawberry releases.

The bird also honors Zeleny, who helped make the bluebird the county bird and who started the North American Bluebird Society with a trail of bluebird nesting boxes still maintained on BARC fence posts. Today, there are similar trails across the country.

For more information on BARC wildlife see the October 2003 issue of Agricultural Research magazine, on the World Wide Web at: http://www.ars.usda.gov/is/AR/archive/oct03/farm1003.htm
-- Don Comis, ARS Information Staff

Veneman Marks 50th Anniversary of ARS

WASHINGTON, Dec. 11--Agriculture Secretary Ann M. Veneman celebrated the 50th anniversary of the U.S. Department of Agriculture's Agricultural Research Service by noting the many scientific advances and breakthroughs that have improved the daily lives of people here and abroad.

"At any given moment, scientists from the Agricultural Research Service are working on 1,000 different projects across a broad range of applications for our food and agriculture systems," Veneman said. "The scientific discoveries that have come from ARS have enabled us to increase our agricultural productivity, enhance food safety and improve our environment."

Agriculture Under Secretary for Research, Education, and Economics Dr. Joseph J. Jen said, "ARS has made many noteworthy contributions throughout its history. We look forward to the opportunities that the next 50 years will bring."

For example, one of the most well known developments was the fermentation technique that led to the breakthrough of the mass production of penicillin in 1941, just in time to save thousands of lives in World War II. The deep fermentation method ARS developed for penicillin production and outgrowths from this technology have since been instrumental in development of many other important antibiotics.

In the area of food safety, ARS sequenced the genomes of several types of bacteria that cause foodborne illness--four types each of Campylobacter and Listeria, which help experts find new ways to control these pathogens. ARS also helped develop a handheld scanner that can help identify microbiological contamination of beef carcasses. And, ARS is playing a role in the department's Unified Food Safety Research agenda to enhance efforts in food safety solutions.

ARS has not just worked to make food safer, it has also been a leader in human nutrition research. ARS research found a link between cataract development and lower levels of vitamin B6, folate and taurine in the diets of the elderly as well as showed a relationship between vitamin C intake and blood pressure in the elderly. And ARS is the home of the national food consumption surveys to find out what people are actually eating. Data from the ARS Supplemental Children's Nutritional Survey in 1999 were the basis for U.S. Environmental Protection Agency's new regulations ensuring that food does not contain harmful levels of pesticide residues.

ARS developed the Universal Soil Loss Equation and its subsequent revisions, helping farmers and other land users prevent millions of tons of soil from being lost to erosion while preserving the soil's ability to support agriculture. Research progress is a large part of why one U.S. farmer feeds 129 people today, compared to one farmer growing enough food for 19 people in 1950.

Veneman also highlighted another critical role of ARS--providing the scientific facts and findings needed by other USDA agencies as the basis for action and regulatory decisions. Examples include working with USDA's Animal and Plant Health Inspection Service to develop a rapid detection system used in the recent avian influenza outbreak in Virginia, and developing imaging technology to help USDA's Grain Inspection, Packers and Stockyards Administration grade wheat more effectively. ARS diagnostic tests such as those to identify anaplasmosis in cattle or Karnal bunt in wheat are critical in helping maintain export markets for American products.
-- Kim Kaplan, ARS Information Staff

Membership and Dues

January marks the beginning of our 19th membership year. Please remember to renew for 2004. We thank the members that have already mailed in their dues. Membership dues are one our main sources of revenue. We rely on your support to carry out our commitments at BARC.

Dues for 2003 remain at $20 for Personal Members; $10 for Associate Members (USDA employees); $100 for Patrons; and $500 or more for Sustaining Members.
-- **Janet Ferst**, Membership Chairman

Financial Report

Even though FAR-B's overall financial status remained solid throughout 2003, total dues collection decreased by $1,400 and income from the Combined Federal Campaign decreased by more than $1700 in comparison to 2002. Fortunately, income generated by the workshops FAR-B cosponsored during the year and

generous contributions to FAR-B from members have brought in additional funds to counterbalance these decreases.

The distributions of FAR-B's expenditures for 2003 were 37% for Research, 40% for Education, 20% for Outreach, and 3% for Administration. -- **Vernon Pursel**, Treas.

Looking for Innovative Ideas

One of the new programs initiated by FAR-B in 2003 was the Innovative Idea Award. Open to all BARC employees, this program is designed to encourage innovation in all aspects of BARC activity with particular emphasis on new ideas for which there is no immediate Federal funding. The award is a grant of $1,000 for use as seed money to begin the process implementing any new, innovative idea. It is envisioned that, when the initial development of an innovative idea shows particular promise, its further implementation would be supported by base funding from BARC.

Applications will be considered in any one of four categories. The Scientific category is for a novel, untested scientific idea that requires a little extra funding to get started. The Technical category would support the application of a new or modified technique to be used in scientific research. An Administrative category would encourage practical improvement of an administrative procedure or the initiation of a new procedure. And the Grounds and Maintenance category which would promote new, efficient procedures or ideas that would contribute to the beautification of the BARC campus. In each instance, the grant would most likely be used to purchase supplies, materials, or a piece of equipment necessary to begin work on an innovative idea.

All applications for an Innovative Idea Award will be considered. Individuals are simply required to submit a free form proposal (not to exceed two pages) at any time briefly explaining the problem and an innovative idea for its solution. The only additional requirement is for a brief statement from the applicants first line supervisor agreeing to the request.

Proposals should be sent to Friends of Agricultural Research Inc., P.O. Box 1061, Beltsville, MD 20704-1061. Awardees and their innovative ideas will be recognized in the *FAR-B News*, at the FAR-B Annual Meeting, and their Management Unit will be encouraged to also make appropriate recognition. FAR-B looks forward to the opportunity to help promote new ideas and innovation on the BARC campus.
-- **Ralph Bram**, Vice President

FIRST CLASS
Friends of Agricultural Research-Beltsville, Inc.
PO Box 1061
Beltsville MD 20705-1061

President's Message

Dear Friends and Colleagues,

Let me begin by drawing your attention to the fact that FAR-B News has a new editor, Hank Becker. Formerly with the Information Staff. Hank was the national media liaison for ARS before he retired. Now, he is a member of the FAR-B Board as the publicity chair. Through the years, I'm sure you have all read many of Hank's articles in the *Agricultural Research* magazine as well as in *The Quarterly Research Report of Congress*. We are grateful to have his time and talents on the Board.

Jim Butcher, the former editor, asked to be relieved of this duty so that he could devote more time to his other assignments on the Publicity Committee, BARC Landscaping Committee and as our Legislative Liaison. Many thanks, Jim, for your persistence and patience in editing and publishing The FAR-B News.

Another new assignment on the Board is that of Treasurer. Vern Pursel, a recent retiree as Research Leader of the Gene Evaluation and Mapping Laboratory, assumed the position this past Fall. Vern's understanding of spreadsheets and pie charts has given us new visual aids for tracking our income and expenses.

The Board is currently assessing our budget and goals for the coming year. Thanks to our members, as well as to a generous ($10,000) contribution from Monsanto Corporation, FAR-B had income of approximately $30,000 in 2002. In addition to our research, education and out-reach activities, our efforts also centered on working with the BARC Landscaping Committee to restore the plantings that were destroyed by the 2001 tornado. This activity is nearly complete and I am happy to report that an estimated $40,000 to $50,000 worth of nursery stock--much of which was donated or discounted by the nursery industry--has been planted at BARC-West.

We anticipate that our income for 2003 will be about $20,000, which will be used for research (51%), education (35%), outreach (11%) and administrative (3%) activities. Although we do not anticipate sponsoring any large symposia, several scientists have contacted the Board for assistance with workshops. In addition, we will help sponsor the Distinguished Lecture Series that the BARC Area Director initiated in 2002. This series consists of 4 to 6 speakers of international reputation who present formal, general interest lectures to the BARC scientists and then meet informally with groups in similar disciplines. The most recent lecture, given by Dr. May R. Berenbaum, was entitled "Insects--Aliens from the Planet Earth". FAR-B members are welcome to attend these lectures. If you have access to email, please contact Janet Ferst (JANETFERST@AOL.COM), Chair of the Membership Committee, and she will send notices of future lectures.

As always, we appreciate any comments that our members may have concerning the activities of FAR-B. Please feel to contact me ( ) or any of the other Board members.

Sincerely,
Bill Wergin

Membership and Dues

Our membership remains strong. Currently we have 200 members. We are grateful for the support of all our members. January marks the beginning of our 18th membership year. Please remember to renew for 2003. Some members have already mailed in their dues, and we thank them. Individual reminders were mailed in early Feb. at the end of January. Membership dues are one of our main sources of review. We rely on your support to carry out our commitments. Dues for 2003 remain $20 for Personal Members; $10 for Associate Members (USDA employees); $100 for Patrons; and $500 or more for Sustaining Members. (Janet Ferst)

The Area Director's Distinguished Lecture Series
On Friday, January 31, 2003, Dr. May R. Berenbaum, Chair, Department of Entomology, University of Illinois, Urbana, IL, spoke on the topic of "Insects - Aliens from the Planet Earth."

In her lecture, Dr. Berenbaum said that as far as most people are concerned, insects are as different from humans as an organism can be and still be of this planet. They have an embarrassment of appendages, a basic body plan that's inside-out and upside-down from a human perspective, and they have adopted lifestyles and diets that defy the imagination. In reality, however, insects and humans share remarkable similarities and in many cases it is these similarities that give rise to the perceived hostilities as well as to many unrecognized partnerships. The study of insects and of their interrelationships with their environments can imbue us humans not only with greater tolerance but also with greater insights into our own lives.

Entomologist May Berenbaum is internationally known for her contributions to the field of chemical ecology. Dr. Berenbaum specializes in the chemical interactions between herbivorous insects and their hostplants, and the implications of such interactions on the organization of natural communities and the evolution of species. Dr. Berenbaum has also written several popular books, including "Buzzwords: A Scientist Muses on Sex, Bugs, and Rock 'n' Roll," and the awardwinning "Bugs in the System: Insects and Their Impact on Human Affairs."

Some of Dr. Berenbaum's awards and honors include the Swanlund Chair--the highest endowed title at the University of Illinois--the E. O. Wilson Naturalist Award from the American Society of Naturalists, the Silverstein-Simeone Award from the International Society for Chemical Ecology, the Founder's Award from the Entomological Society of America, and membership in the National Academy of Sciences. She has also been elected a fellow of the American Academy of Arts and Sciences, the American Philosophical Society, and American Association for the Advancement of Science. (Vern Pursel)

INVITATION TO MEMBERS OF FAR-B

FAR-B's fourth annual version of the Beltsville Invitational--the group's premier community outreach activity--will take place Friday, April 25 2003 in the conference facility of Building 005.

This year attention will again be focused on the three dozen or so students from the science and technology program at Eleanor Roosevelt High School in Greenbelt. They volunteer roughly half their school time to laboratories scattered around BARC, helping their mentors with projects, which are often significant to ARS research.

The students generally encapsulate their work in science-fair-type-displays, which will be on display from 10 a.m. to noon in Building 005.

Following a catered luncheon and closing ceremonies, the day will culminate with tours of the "Beltsville Nobody Knows," conducted by staff members of ARS' National Visitor Center (NVC).

For further information about the Fourth Annual Beltsville Invitational, please contact the chairman of FAR-B's Community Outreach Committee, Charles Dickson at (voice) (301) 577-6645 or (e-mail)

FRIENDS OF AGRICULTURAL RESEARCH--BELTSVILLE, INC.
P.O. Box 1061
Beltsville, Maryland 20704-1061

January 15, 2003

Senator Arthur Dorman
11107 Montgomery Road
Beltsville MD 20705

Dear Senator Dorman:

The Maryland State Legislature will convene this month without you for the first time since 1965. The legislative body quite literally will no longer be the same, though we know the legislative process will go forward. We are confident that Beltsville will continue to receive first-rate representation, though never more successfully, nor more effectively, nor more thoughtfully than when you were Beltsville's very own state Senator.

At the January meeting of the Friends of Agricultural Research-Beltsville (FAR-B) Board of Directors, the Board voted unanimously not to allow this occasion to pass without expressing our appreciation and commendation for your long and faithful service to the Beltsville Agricultural Research Center, to the larger community, to the state, and indeed to the nation.

Those of us who have been here long enough to retire hold vivid recollections of your tireless efforts on our behalf. Younger employees and current managers are well aware of your support as well. Perhaps the one circumstance that stands out most strikingly is your powerful contribution to protecting BARC against a misguided, but high-level initiative several years ago to close the facility.

Our membership is composed principally of retired BARC scientists and managers, current BARC employee associate members, and a number of private firms and individuals who have a particular interest in BARC. We carry out a number of activities to support BARC including, educational outreach to the public and local schools, sponsorship of the Director's Distinguished Lecture series, and annual

Financial Report

FAR-B's financial footing remained solid throughout 2002. This was due in no small measure to more than $6,000 of income from the Combined Federal Champaign. As a consequence, we finished the year with income exceeding expenses by $3,732. The BARC Landscape Renovation was the major expenditure for the year and amounted to a total of $23,745 with $15,430 coming from donations by individuals and corporations.

The Board has approved a budget of $22,640 for 2003. The planned distribution of these expenditures is 51% for Research, 35% for Education, 11% for Outreach, and 3% for Administration. (Vern Pursel)

In Memorium

Secretary Ann M. Veneman asked that we share with USDA employees the sad news that former Secretary Dick Lyng passed away over the weekend. The following is a statement issued by Secretary Veneman, as well as a news article that appeared in the Modesto Bee, highlighting his remarkable career and life.

February 1, 2003
Statement by Agriculture Secretary Ann M. Veneman on the Passing of Richard E. Lyng, U.S. Secretary of Agriculture, 1986-1989.

"Today, we are deeply saddened to learn of the passing of Dick Lyng, who served this nation as Secretary of Agriculture during the administration of President Ronald Reagan.

"Secretary Lyng was a visionary leader in agriculture who worked passionately on behalf of this nation's farmers and ranchers. He was a friend, a mentor and person of great integrity whose insight, candor and wisdom will be sorely missed.

"I join the entire USDA family and agriculture community throughout the nation in offering our deepest sympathies and prayers to the entire Lyng family, particularly his daughters and grandchildren.

"Secretary Lyng shared many friends and colleagues and touched the lives of so many people. Today while we mourn his loss, we also celebrate a remarkable man and an inspiring life journey."

#
The Modesto Bee, 2/2/02, Ex-ag secretary Lyng dies
http://www.modbee.com/local/story/6066587p-7020939c.html

witness testimony to the Congress to support appropriations for BARC research. We are gratified that we were able to raise several thousand dollars in donations and plant materials to help restore the BARC landscape and grounds near Route 1 that were severely damaged during the September 2001 tornado.

Senator Dorman, we wish you well with whatever interests and pursuits the future may hold for you. You may rest assured that you have left an legacy on your community and on the Beltsville Agricultural Research Center. We thank and commend you for those extraordinary contributions.

Sincerely,
James O. Butcher
Legislative Liaison, FAR-B

Former Professor Named BARC Plant Sciences Director

Back in the 1970s the Beltsville Agricultural Research Center went through one of those transforming organizational makeovers that U. S. Government institutions experience from time to time. A new organizational plan was drawn up for the nation's flagship agricultural research center. New management hit on the idea of modeling Beltsville after the venerated National Institutes of Health. A key component of the plan was to appoint institute directors whose recognized accomplishments would lend instant credibility to the institutes. Though the designers of the plan have long since gone into retirement, the spirit remains in place today—design well-organized research institutes led by great scientists-managers.

Beltsville's newest institute director is Dr. Wanda Collins. When the directorship of the Plant Sciences Institute became open a couple of years back, a far-ranging search went into action to find the best qualified scientist-manager to fill the vacancy. After months of sifting through applicants, Dr. Collins stood out as the best candidate. She agreed to relinquish her high-profile position as Deputy Director General for Research at the Center for International Potato Research in Lima, Peru, to take up the Plant Sciences Institute directorship at Beltsville.

Speaking in the soft cadences of her native Windsor, North Carolina, Dr. Collins recently welcomed a visitor to her office. The visitor quickly senses the confident but utterly unpretentious nature of this highly successful woman. She discusses her career and vision with the ease of someone perfectly at home with herself and where she's going. Moreover, she has the knack for projecting an easy manner to others.

Academically, Dr. Collins has the virtually unheard of distinction of holding two masters degrees and two doctorate degrees. One set of masters-doctorate degrees is in plant pathology. A second set is in plant genetics. She is quick to point out how these specialized study areas merge to complement her own research interests.

For 17 years, she was a research professor at North Carolina State University, where she dedicated her work principally to improving disease resistance and overall quality of sweat potatoes. The Tarheel state grows more sweet potatoes than any other U.S. state. Yet 99 percent of world sweet potato crop is grown outside of the United States--chiefly in Africa, China, and Latin America. To pursue her work on sweet potatoes, she soon discovered the need to reach out to a world-wide network of

international collaborators. It was that international collaboration that led to the next stages of her career.

By 1994, the U.S. Agency for International Development was calling on Dr. Collins to take a one-year leave of absence from the university to serve as a science advisor at the World Bank. She would provide scientific liaison between U.S. universities and agricultural research centers around the world--chiefly to that special group of International Research Centers that is generally credited with generating the famous "Green Revolution." A year later, she left the university permanently to assume the position of Agricultural Research Advisor for the World Bank.

In 1997, the International Potato Center (better known by the Spanish acronym, CIP) enticed Collins to leave the World Bank for the prestigious position of Deputy Director General for Research. Headquartered just outside Lima on Peru's coastal plane, CIP works to reduce poverty and improve food security with programs on potatoes, sweet potatoes, other root crops. Another goal is better natural resources management for the Andes and similar regions of the world. Besides the coastal location, CIP operates a research station in the high Andes (average height some 12,000 feet), and another in the vast tropical rainforest that slopes eastward toward Brazil and the Amazon Basin.

Dr. Collins likes to talk about CIP. Clearly she enjoyed her duties at CIP and remains committed to its humanitarian mission. The potato--for which CIP is named--is native to the South American highlands. It has been consumed there for over 8,000 years. At times it has been variously blamed for everything from lust to leprosy. Spanish conquistadors first took potatoes to Europe in the 1500s. The crop adapted well to the European climate and soon became a food staple. As legend has it, potatoes first arrived in North America in the form of a gift from the governor of the Bahamas to the governor of Virginia, both then British colonies.

Today, everybody knows potatoes, our most popular vegetable. It appears in everything from fries to doughnuts. But not everybody knows that a single medium-sized potato contains half the daily adult requirement of vitamin C. Move over, orange juice.

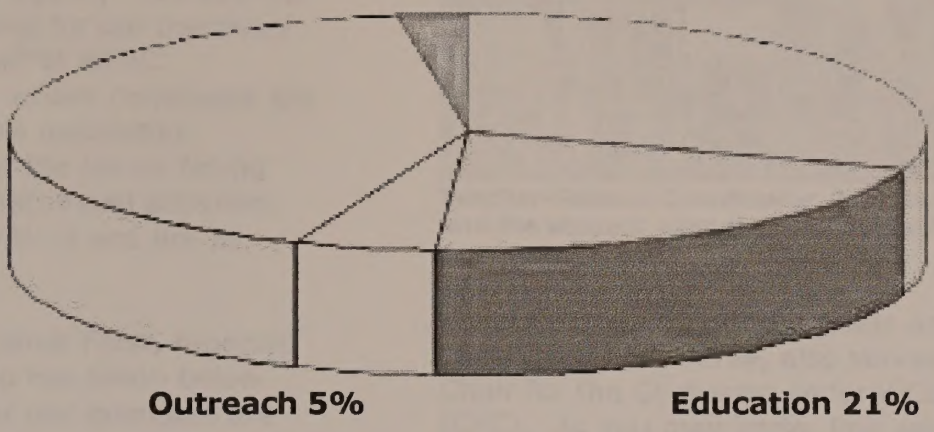
Sweet potatoes are CIP's second major crop plant. Over 95 percent of the global sweet potato crop is produced in developing countries, where it is the fifth largest food crop. Scientists believe that sweet potatoes were domesticated in the Americas more than 5,000 years ago. CIP's sweet potato germplasm collections count over 6,500 samples from every imaginable source.

But the most fascinating of CIP's germplasm collections may be a group of ancient, threatened root crops that have only recently been "re-discovered" and described in a book entitled "the lost crops of the Incas." CIP has launched an emergency program to rescue nine such species. Known in the Quechua Indian language as *achira*, *ahipa*, *arracacha*, *maca*, *mashua*, *mauka*, *oca*, *ulluco*, *yacón*, these crops are economically and nutritionally valuable to subsistence Andean farmers. They often are used as substitutes for expensive fruits and vegetables. They also have immense potential to become viable export crops. Uses include oca and achira as starches, arracacha as a baby food, and yacón in a sweetener for people with diabetes. At least two crops are thought to have strong influences on human sexuality.

But in 2001, when the call came to lead the Beltsville Plant Sciences Institute, Dr. Collins elected to accept this newest challenge of a remarkable career. She now directs 13 laboratories that use fundamental and applied research to solve national and regional problems. The institute employs approximately 135 scientists/support scientists and 204 supporting staff at Beltsville. At the close of an interview, Dr. Collins succinctly summed up one basic motivation for becoming plant sciences director. She said, "Because I like to help people." - by Jim Butcher

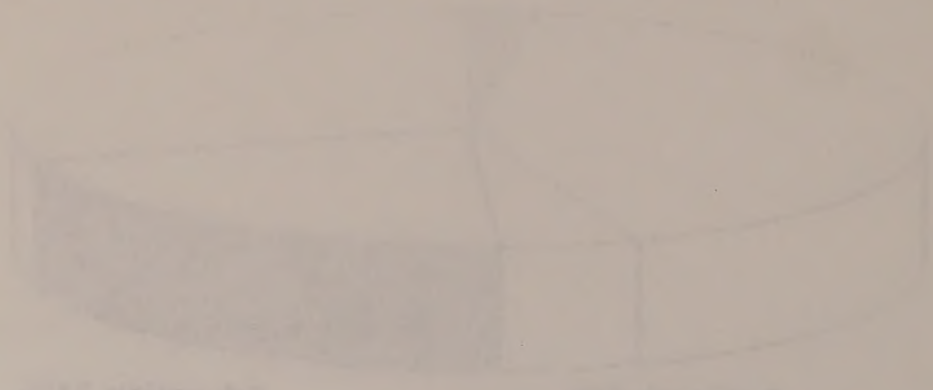
FAR-B and CFC

The Friends of Agricultural Research-Beltsville, Inc (FAR-B) is in its third year of participation in the *Combined Federal Campaign* of the National Capital Area (*designation number*) Last year we were able to raise about $8,000 to support the research, educational and outreach programs at Beltsville Agricultural Research Center. CFC funds have become a major source of income. We are asking for your help again this year. The surrounding community also benefits from the Center's activities. For the first time, we are asking our neighboring Federal agencies that work at Beltsville to contribute to our campaign. Protecting the "Green Way" that extends from BARC to the Patuxent Wildlife Center is an important local ecological resource. We have in the past, and continue today, to resist any development of this property. Our Focus group advises Congress on the need to maintain a strong program at the Center. Last year, we had to commit a large percentage of our budget to repair damage caused by the 2001 tornado.



FAR-B is an all volunteer organization with no paid employees. We return 97 cents of every donated dollar to support the Beltsville Agricultural Research Center Please help us by sending a tax-deductible donation to FAR-B or by designating FAR-B on your CFC payroll deduction this year!

Phil Kearney, CFC Chairman)



Friends of Agricultural Research-Beltsville, Inc.
PO Box 1061, Beltsville, MD 20704-1061

— Dedicated to promoting the research and education programs of the Henry A. Wallace Beltsville Agricultural Research Center, Beltsville, MD —

THE FAR-B NEWS

June 2004 *Editor: Hank Becker*

President's Message

Dear Friends and Colleagues,

The 18th annual meeting of Friends of Agricultural Research--Beltsville was held on May 11 in the main auditorium of the Henry A. Wallace, Beltsville Agricultural Research Center. The meeting was highlighted by our quest speaker--Dr. Edward B. Knipling, Jr., Acting Administrator of the Agricultural Research Service. Dr. Knipling spoke on the National Research Outlook for the agency and addressed the current issues and problems facing the agency. His address provided a fine update for our members and the research staff at BARC.
Dr. Phyllis Johnson, whose comments are included below in this newsletter, summarized some of the issues facing BARC. I reviewed status and activities that currently face FAR-B and are as follows:

Membership Chair, Janet Ferst, reported that our membership has fallen below 200. Roughly half of our members are retirees and the remaining half are non-voting associates who are BARC employees. FAR-B had a booth at the annual BARC Field Day in an attempt to recruit new members to the organization.

Vern Pursel, our Treasurer, submitted a budget for 2004, which has been approved by the Board. Our projected income will be around $1,600, which will be used for research activities (40%), education (34%) outreach activities (12%), facility improvement (12%) and administrative costs (2%). The 2% administrative cost consists of printing and mailing the FAR-B Newsletter.

Teacher-Science Coordinator, Jennifer Maulfair, and the student winners from the Beltsville Academic Center

Phil Kearney, chair of the Goals and Objectives Committee, also serves as our Chair for the Combined Federal Campaign (CFC). As you may know, Phil was chiefly responsible for making FAR-B eligible for CFC contributions a few years ago. As a result, in 2004 FAR-B will receive nearly $7,000 from contributors who designate our organization on the CFC forms. We thank those of you who participate in this way and ask that you continue to remember us during future campaigns.

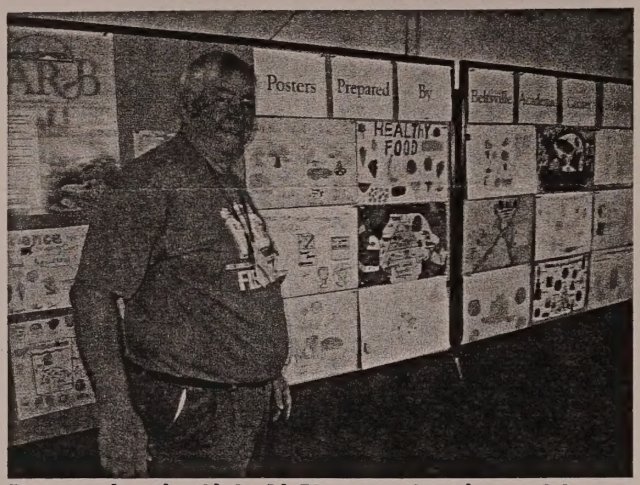
Although FAR-B did not sponsor any major symposia this past year, we continued to assist with smaller workshops and

lectures. During the past year, we extended our assistance to Kearneysville, West Virginia for the Plum Pox Eradication Control Workshop and are currently working with the Tomato Breeders Round Table group, which will hold their meeting this Fall in Annapolis. In addition, we provided support for the Distinguished Lecture Series, that Dr. Johnson initiated last year.

To help support research programs at BARC, Jim Butcher, our Legislative Liaison, assembled testimony for the appropriate Subcommittees on Agriculture in the US Senate and the US House of Representatives. FAR-B emphasized four areas for funding this year:
1) Identification, prevention and control of invasive species; 2) Restoration of previously Congressional mandated programs for FY01, 02 , 03 and 04, known as "add ons". At least 10 different areas of research would be adversely affected by discontinuing the current funding; 3) Support for the goals of the BARC and Maryland Technology Development Cooperation and; 4) Phase III of the Beltsville Human Nutrition Center. We owe Jim a depth of gratitude for assembling the documentation that was required for his efforts.

Perhaps our biggest effort this year involved our outreach and education efforts. For the first time, FAR-B provided support for the Montgomery County Science Fair. More recently, we assisted with the poster day activities at BARC where the research activities of the high school students from Eleanor Roosevelt and those of the BARC post-docs were combined into a 1-day event. The research posters were judged and Vern Pursel, who represented FAR-B, presented cash awards to the outstanding high school students.

Finally, our Administrator's Liaison, Al Stoner took on a gigantic task by meeting separately with 30 classes at the Beltsville Academic Center. Al used the occasion to introduce ARS's *Science in Your Shopping Cart*, a well illustrated color publication that Dianne Odland, ARS Information Staff, provided for each student. Thanks to Jim Butcher, Chair of Outreach Activities, for introducing us to this local elementary school.



Research scientist, Al Stoner, stands next to the winning posters

In addition to these activities, I am also happy to report that the Board authorized funds to bid successfully on the "Blue Bird" that stood outside of the Visitors Center last summer/fall. This bird, which was uniquely painted to reflect research activities at BARC, was the result of a public art's project sponsored by Prince George's County. The project culminated in an auction that benefited arts in education in Prince George's County. The "Bird" will now become a permanent feature of the Visitor's Center where it can be viewed.

Our annual meeting adjourned after Mort Beroza, Chair of the Nominations Committee, called for nominations for two Board vacancies. Nancy "The Nurse" Thrush and Jim Smith were nominated and elected by acclamation. Nancy, who addressed the health and safety of BARC employees for nearly 40 years, needs no introduction to FAR-B members. Jim Smith, who spent his career in the Human Nutrition Center, brings to the Board a discipline that we were lacking. Congratulations to both individuals!

If you, our members, have any thoughts on other activities that you would like to see FAR-B engage in, we would be pleased to hear from you. Please feel to contact me (wwergin@msn.com) or any of the other Board members.

William P. Wergin, President

Membership Update

Thank you to the FAR-B members who have paid their 2004 dues. Personal Member dues are still $20.00 and Associate Member (employee) dues are still $10.00. With the uncertainty of the budget this fiscal year, we want to continue to fulfill the many requests for assistance we receive from BARC. You can mail your dues to FAR-B, Inc., P.O. Box 1061, Beltsville, MD 20704-1061. Thanks so much for your continued support.

Janet Ferst, Membership

From the Area Director

For the past year, BARC has been involved in A-76 activities, which involves studying various support functions to see if they can be done more economically by contractors than by in-house federal employees. In early April, we made the transition from an in-house security force to contract security. We expect this change to save us several hundred thousand dollars per year in indirect costs to our researchers. The transition went very smoothly, and several of the affected employees are now working for the contractor.

We have two ongoing A-76 --studies, one of facilities services that includes the National Agricultural Library and the Arboretum, as well as BARC, and one that covers animal care and farming support services. The statements of work for both of these studies have been posted on the web, and the deadlines for proposals from both private contractors and our in-house employees are due to contracting in August. The final decision on who gets the work will be made around Christmas time, but the transition to a new service provider or a restructured in-house activity will not be complete until May of 2005. Regardless of whether the in-house proposals or outside bidders win, we expect that these activities will also generate some cost savings for BARC. This will be a big help to the research community, since the budget outlook is for flat or slightly decreased appropriations in the next few years.

Late in June, the House Appropriations Committee finished its markup of the proposed appropriation for FY05. The projects that were proposed for termination in the President's budget are being retained by the House. The Senate hasn't started its markup yet. It appears that we will have few or no funding increases at BARC in FY05. There is no funding in the House markup for facilities at BARC.

We are still waiting for word on a selection for the ARS Administrator. The application process for this job started last October. Secretary Venneman interviewed Dr. Ed Knipling, the current Acting Administrator, and Dr. Chuck Onstad, the Southern Plains Area Director.

ARS continues to celebrate its 50th anniversary throughout this year. On June 5, at the BARC Public Field Day, we buried a time capsule with objects from each of the labs at BARC in front of Building 004. It's a metal container that had the air evacuated and replaced with nitrogen. There is a large boulder above the burial site, and we will be putting a cast bronze plaque on it, with the GIS coordinates, so that even if the rock ever gets moved, future ARS employees will be able to find the time capsule in 2054.

Phyllis Johnson, Director

CFC Raises Over $6,000 for FAR-B

We want to thank everyone who contributed to the 2003 FAR-B Combined Federal Campaign. Last year we raised $6234.67 for support of the research, education and outreach activities at Beltsville.

Let me give you a breakdown of who contributed to the fund. A total of 40 people made a direct contribution or used the pay-role deduction plan. The average contribution was $155.86; the maximum was $500.00. The minimum was $25.00.

We need to encourage greater participation at Beltsville to fund the many useful programs we cosponsor with the Center. The outreach program was an outstanding success this past year. We sponsored science fairs, provided judges for these fairs and went directly into local schools to educate students about the important role agriculture plays in our daily lives.

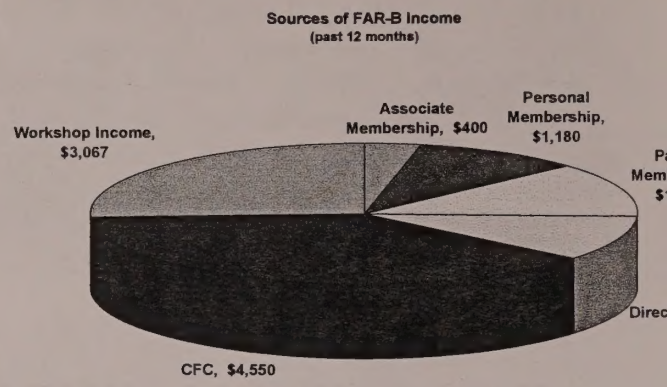
FAR-B is a well run organization that has been in operation for over 20 years. For every dollar donated to the CFC fund, we return 97 cents to Beltsville. We are able to do this since FAR-B is an all volunteer program managed by retired federal employees. Please keep us in mind this fall when the new CFC campaign begins.

The other good news is that FAR-B was again approved to participate in the 2004 campaign.

Philip C. Kearney, Chairman, CFC Committee

FAR-B Financial Report

The Board of Directors suggested that you may find it of interest to learn the source of FAR-B's income during the past 12 months. As you can see in the pie chart below, annual dues makes up less than one fourth of FAR-B's income. In contrast, just about half of FAR-B's funds are derived from generous contributions from 42 donors to the Combined Federal Campaign and direct cash donations from the following members during the past 12 months: Valorie Akuffo, James Butcher, Wanda Collins, Deborah Fravel, Nancy Gatdula, Matthew Greenstone, Freddi Hammerschlag, Daniel Harmon, John Kucharski, Sueo Nakahara, Paul Putnam, Sarah Wells, and Ann Whitehead. These contributions make a huge difference in the programs and events that FAR-B is able to support throughout the year.



Vernon Pursel, Treasurer

In Memoriam
FAR-B Founder William A. Bailey

One of the founding fathers of FAR-B, Bill Bailey died on December 15, 2003. He was interred in Arlington National Cemetery in Virginia on December 31 besides his wife Mary. Bill is survived by his five children, 12 grandchildren and 7 great-grandchildren.

Appointed by the Area Director Walden Klausen, Bill was a charter member of the group of Beltsville retirees and served 17.5 years on its board of directors. Up to the time of his death, he was active on the board and with engineering and civic activities. He was beginning a term as National President of the Civilian Conservation Corps (CCC) veterans association, having served in the CCC early in its inception. He was also serving

as a consultant with the Agricultural Research Service on plant growth chambers. He was also serving as Treasurer for the group of ARS retirees who assemble for bi-monthly luncheon meeting to learn of new research findings.

Born in Palmyra, Nebraska, on December 31, 1922, Bill earned his undergraduate degree from Princeton University and his masters from the Agricultural Engineering Department at the University of Nebraska. He joined the American Society of Agricultural Engineers (ASAE) in 1952 and remained active in its activities throughout his career. He worked for a short time with spray equipment in Buffalo, New York, before joining the Farm Structures Research Branch of the ARS Agricultural Engineering Division in the 1950's and was stationed at the University of Connecticut designing heated septic tanks for disposing of chickens that had died of disease.

His next project was cooperative with the University of Maryland, College Park--studying farmstead water usage on dairy farms. In 1962, he moved to Beltsville to work with plant growth scientists studying the effects of environment—research that gained him international recognition. As that project drew to a close, Bill began studying the losses of animals during air transport and advising the airline industry on proper handling and care of animals during transport. He flew with various planeloads of various animals in transit, including pigs from China and llamas from Columbia. At the time of his retirement in 1985, he had expanded his research into investigating emerging problems with rail and truck transport of animals.

Bill was active in many community affairs. He helped develop greenhouse training facilities and programs for the Melwood Center for the handicapped. For many years, he served on the staff of the Science Fair programs of Prince Georges County, where he worked and lived. While in Connecticut, he became a friend with a poultry husbandry man. When both of them moved to the University of Maryland, they banded together to design a poultry farm in Montgomery County that soon changed to a community barbeque picnic area that was a popular rendezvous for many community groups. He arranged for several ASAE MD-DC Section activities.

Before entering the Marines, he entered the CCC in the early 1940's during the Nebraska Dust Bowl. At the time of the Pearl Harbor attack, he was stationed in Alaska.

The FAR-B board would like to acknowledge the great loss of Bill's passing. The board is far poorer without his presence and expertise. We would also like to extend our sympathy to his family and many friends.

Hank Becker, Publicity

Testimony for the Subcommittee on Agriculture, Rural Development, Food and Drug Administration, and Related Agencies of the Committee on Appropriations U. S. House of Representatives

Mr. Chairman, and Members of the Subcommittee, thank you for this opportunity to present our statement supporting funding for the Department of Agriculture's Agricultural Research Service (ARS), and especially for the Agency's flagship research facility, the Henry A. Wallace Beltsville Agricultural Research Center (BARC), in Maryland. Our organization, Friends of Agricultural Research--Beltsville, is dedicated to supporting and promoting the Center's agricultural research, outreach, and educational mission.

Our testimony addresses four central themes:

First, we begin with our highest recommendation for an item within the President's budget—Identification,

Prevention, and Control of Invasive Species.

Second, we turn to the urgent need to continue support for specific research areas mandated by the Congress in fiscal years 01, 02, 03, and 04. These projects address critical research needs that have enormous impact. They have been strongly endorsed and supported by this Subcommittee and many others. We list them below with brief descriptions and our recommendations for continued funding.

Third, we briefly discuss the BARC and the Maryland Technology Development Corporation (TEDCO) partnership for transferring technology from the laboratory to the marketplace. We fully support the goals and accomplishments of this special relationship.

Last, we will address our recommendation for construction funds to complete Phase III of the Beltsville Human Nutrition Research Center.

Jim Butcher, Legislative Liaison

Science in Your Shopping Cart Rolls at Beltsville Academic Center

The big shopping cart rolled into the Beltsville Academic Center (BAC) Latin room on an early March day. It was jam packed with fruits and vegetables and pizza mixes and cotton socks and orange juice and baby diapers and all manner of goodies that you ordinarily would find at the grocery store.

Soon enough, a big, friendly, bear-of-a-research-scientist from the neighboring Beltsville Agricultural Research Center (BARC) would turn up to explain what the shopping cart and its contents were all about. A huge applause goes to teacher-science coordinator Jennifer Maulfair, who ably handled all the liaison responsibilities for the school.

Over the coming weeks, every BAC class—30 in all—would make its way to the Latin room to meet the shopping cart and the big, friendly scientist who came to explain it. Once there, students heard how science supports the national bounty of food and fiber products that the shopping cart symbolizes—why Americans enjoy arguably the world's cheapest, richest abundance of highest-quality, delicious food.

When not hanging out in elementary school classrooms, entertaining his grandkids, nieces, and nephews, or playing the jolly Saint Nick at holiday parties, the scientist in real life is Dr. Allan Stoner, Research Leader of the National Germplasm Resources Laboratory.

Stoner holds a bachelor's and a master's degree in plant breeding and genetics from Purdue University and a doctorate in plant breeding and genetics from the University of Illinois. Al also serves as BARC's Area Director's Representative to the FAR-B board.

You would be hard pressed to say which Al Stoner enjoys more--leading a national plant germplasm research program or entertaining kids. He is gifted at both.

Science in Your Shopping Cart is the name of a beautifully illustrated color publication from Department of Agriculture's Agricultural Research Service (ARS). Printed on high-quality paper, it illustrates some of the many ways--both familiar and surprising--that science touches and improves daily life in the United States. A videotape version is available for teachers and other educational leaders. Thanks to Dianne Odland of the ARS Information Staff, every student received a copy of the publication to keep and take home.

Dianne says, "I got to see Al in action at two of his *Science in Your Shopping Cart* presentations—a first and sixth grade class. He's very skilled at getting kids to participate and at holding their attention.

An entire school has now been converted. What a contribution FAR-B has made in providing this program to BAC!"

The ARS publication is laced with morsels like these:

Turning on the Juice --Fifty years ago, frozen orange juice was just a flavorless commercial flop. The only orange juice you could get back then was squeezed from fresh oranges, mixed from a relatively tasteless concentrate, or poured from a can--and it tasted like a can! Lots of good Florida oranges were going to waste.

Then an ARS scientist hit on the bright idea of adding a bit of fresh juice to restore the flavor and aroma lost during the preservation process.

Eventually, ARS researchers with the right equipment and expertise got a hold of the idea. Not only did the idea work, it vastly improved the concentrate for freezing. And so began the success story that's now such a familiar sight on the breakfast -- table-frozen concentrated orange juice.

Grapes of Craft --Sweet, juicy grapes, picked at the peak of ripeness, are one of nature's best-tasting treats. In vineyards, greenhouses, and laboratories, ARS scientists seek to bring even better grapes to your shopping cart.

America's most popular red seedless grape, Flame Seedless, came out of research laboratories like those Al Stoner works with. A relatively new black seedless grape called Black Emerald is now available in grocery stores across America. This sweet grape has berries about the size of a dime and is translucent, firm, and almost crisp.

Hot Combo—Tortillas and Chili Peppers --Ever consider growing your own fiery cayenne pepper? ARS scientists have created a new hot pepper that's 20 times hotter than the typical cayenne, and it's ideal for growing in the home garden. One plant will produce at least 134 pepper pods, and it grows just about anywhere.

Farm-Grown Catfish --Long regarded in the South as a down-home delicacy, catfish was hard to find in supermarkets elsewhere until recently. But now, thanks to aquaculture, pond-raised catfish is a popular item in the frozen food case. ARS has helped scale up fish farming by breeding fish for disease resistance, finding better feeds, and eliminating chemicals and pond water contaminants that contribute to fish off-flavors.

More Milk --Because much of the cost of a cow is the feed and labor needed to maintain her, fewer but higher yielding cows mean lower priced milk. That's why it's just as important to keep complete and accurate records as it is to keep the cows happy.

The results of years and years of scientific dairying have kept milk production trending upward. From 1970 to the mid 1990s, milk production in the United States grew from about 117,000 million pounds to more than 150,000 million pounds though we had fewer milk cows.

After hearing Al Stoner's presentation of scientific successes like these and others, BAC students returned to their regular classrooms. Many made posters illustrating the topics they had learned about. "Having seen many of those posters, I can attest to their grasp and insight," Stoner says. "The high quality of the posters proves students not only were attentive and respectful, but they also grasped the rather advanced scientific principles I was trying to get over."

BARC Director Phyllis Johnson, who has seen all 28 posters that the school forwarded to BARC, was so impressed that she directed events planners to put the posters on display at BARC's June 5 Public Field Day.

The Public Field Day draws thousands of visitors every year. Dozens of scientific exhibits were on display. There were hayrides, creepy-crawly creatures, giant farm tractors to climb on, and lots more."

Jim Butcher, Legislative Liaison

Beltsville Area Director's Distinguished Lecture Series

Dr. Jane Peterson, (Program Director, NIH-NHGRI) delivered the March Beltsville Area Director's Distinguished Lecture, "Genomic Tools for Discovery," on March 16 in the Bldg. 003 auditorium, 10300 Baltimore Blvd, Beltsville.

FAR-B Board Members and ARS Acting Administrator Dr. Edward B. Knipling, Jr.

Dr. Gurdev Khush (IRRI and UC-Davis) spoke on the topic, "Feeding the World in the 21st Century," on April 27, 2004.

On Thursday, June 3, Dr. Claire Fraser, President of The Institute for Genomics Research, delivered the last Distinguished Lecture for 2003-2004, "Applied Genomics" was delivered on June 3.

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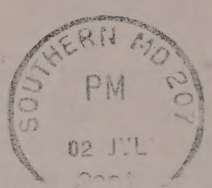

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Dedicated to promoting the research and education programs of the Henry A. Wallace Beltsville Agricultural Research Center, Beltsville, MD

THE FAR-B NEWS

January 2005 *Editor: Hank Becker*

President's Message

Dear Friends and Colleagues,

Here's wishing that 2005 has gotten off to a good start for everyone!

I will keep my remarks rather short, because the Committee Chairs have done a nice job in writing up their FAR-B activities, which are included in the Newsletter.

One concern of the Board is the lack of new memberships. Our current membership has fallen below 200. Roughly half are retirees and the remaining half are non-voting associates who are BARC employees. Please make sure that you are current on your dues and encourage your friends/colleagues to join FAR-B. Dues are one of the main sources of revenue that we use to support our research, education and outreach activities.

During the past few months, Systematics has been a topic of considerable discussion. As we mentioned in previous Newsletters, FAR-B had made several attempts to strengthen the research programs in Systematics at BARC by emphasizing this area in testimonies for the Subcommittees on Agriculture in the U.S. Senate and the U.S. House of Representatives. To help bring attention to the importance of identifying, preventing and controlling invasive species, Ralph Bram proposed that FAR-B allocate up to $25,000 to support one of two proposals that are currently being considered by the Board. Ralph explains these proposals in his column.

Another concern of the Board is the relative decrease in funding that BARC receives compared to the other locations in the agency. Since 1997, ARS funding has increased 52 percent; however, BARC funding has only risen 5 percent.

As a result, funding for programs at BARC has not kept up with the inflation rate. Consequently, the total number of FTEs has fallen from more than 1,400 in 1997 to below 1,200 in 2003. Essex Finney and Darwin Murrel are co-chairs of a committee that is planning to meet with members of the Maryland delegation to bring this discrepancy to their attention.

FAR-B does not have plans to sponsor a major symposium this year; however, we did work with the Tomato Breeders Round Table group, which held their successful meeting last Fall in Annapolis.

In addition, we provided support for the Distinguished Lecture Series, that Dr. Johnson initiated last year. At the present time, we are having discussions with Jeff Aldrich, who is Chair of the annual meeting of the International Society of Chemical Ecology. FAR-B will assist in sponsoring this meeting, which will be held in the Washington, DC area this summer.

The Board has been very fortunate to have had Dianne Odland, from the ARS Information Staff, attend our monthly meetings. Dianne, whose outreach

activities are outlined below, has been instrumental in introducing the science teachers from several surrounding counties to the National Visitor Center as well as the research programs and resources that are available at BARC. Many thanks to Dianne and John Kucharski, at the National Visitor Center, for increasing BARCs visibility.

Finally, Nancy Thrush, our newest board member, is interested in developing a directory of all BARC retirees. The directory, which could be used to locate old friends and colleagues, may also serve as a source for recruiting new FAR-B members. If you are in contact with any former BARC employees, Nancy would appreciate getting their names and/or addresses (*nancyethrush@aol.com*).

On a positive note, if you missed the 3-page article in *Time* magazine entitled *Where the Best Ideas Take Wing* check out the magazine website for the October 11, 2204, issue. The article touts ARS as "one of the most innovative labs in the world" and discusses the feather research technology that turns the poultry waste product into an airy fiber that is remarkably strong, sturdy as nylon and lighter than fiberglass. The fiber can be used to make many products like auto parts to medical devices to dollar bills and a termite-proof building material. Other technologies cited include Deet bug repellent, permanent–press cotton, lactose-free dairy products and many, many more significant inventions during the agency's half-century of operation.

As always, if you have any thoughts on other activities that you would like to see FAR-B engage in, we would be pleased to hear from you. Please feel to contact me (*wwergin@msn.com*) or any of the other Board members.

William P. Wergin, President

Area Director's Message

The 18-month long Competitive Outsourcing process has entered a new phase. On Friday, January 7, 2005, an all-hands announcement was made indicating that the employee's Most Efficient Organization (MEO) proposal for both the facilities and the research/farming studies were the winning proposals in the competition. There were two outside proposals for the facilities study and no outside proposals for the research/farming study. Anyone contesting the announced results had to have their contest filed within 10 days of the announcement with resolution of these contests within 60 days.

There were no contests filed, thus the 60-day transition period for both MEO organizations to take over operations will begin on March 7, 2005, and the new 'organizations' will take over on May 15, 2005. Our Human Resource Division is working on placing employees affected by the study results into positions within the two new organizations. Since there are less total employees in the new organizations, a Reduction in Force (RIF) will take place. RIF notices will be distributed to employees by March 14. The Beltsville Area has received approval to offer early outs but we are still awaiting approval to offer buyouts for affected employees.

In addition to the employee actions associated with the Competitive Outsourcing process, the Area Office is working on both how the new organizations will be managed as well as structuring the new budgetary processes.

On January 24, 2005, a Groundbreaking Ceremony for greenhouse rebuilding was held in the auditorium. A number of congressional representatives as well as USDA officials were in attendance. (See the article for more details)

The Beltsville Area Distinguished Lecture

Series continues this year. Right now, we are trying to schedule Dr. Rita Colwell, Chairman, Canon U.S. Life Sciences, Inc. and Distinguished Professor at both the University of Maryland and Johns Hopkins University.

The following individuals will be recognized at the ARS Annual Recognition Program Ceremony on February 9 at the USDA Jefferson Auditorium: Dr. Jerry Ritchie, Area Senior Research Scientist, and Dr. Yan Zhao, Area Early Career Research Scientist.

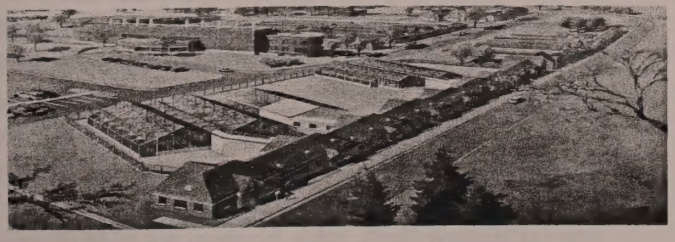
Lastly, on the retirement front, we would like to note the retirement of Dr. Jim Anderson, Associate Director of the Plant Sciences Institute. A reception for Jim will be held on February 9 at 1:30 p.m. in Building 005, Room 21.

Also, Dr. Michael Ruff , who is the Director/Associate Administrator of the Office of Technology Transfer, will retire on February 2, 2005. Mike was a former Research Leader here at BARC. Dr. Frank Greene, Scientific Quality Review Officer, will retire on January 31.

Phylis Johnson, Area Director

Greenhouse Rebuilding Groundbreaking Ceremony

On Monday, January 24, 2005, a ceremony was held at the Henry A. Wallace Beltsville Agricultural Research Center (BARC) celebrating the ground-breaking for the rebuilding of the Plant Sciences Institute greenhouses--a complex that will accommodate research on many important U.S. agricultural crops. It will also house the exotic citrus disease research and serve as a support facility for the newly completed, state-of-the-art containment greenhouse facility, already on site.



Artist rendering of new greenhouse complex.

On September 24, 2001, BARC sustained a direct hit from a Force 3 tornado. Incredibly, no one was hurt though damage was extensive. The greenhouses were particularly susceptible to damage from the strength of the winds and flying debris. Approximately one-half of the greenhouse structures at BARC were damaged or destroyed by the tornado.

Eighteen laboratories across BARC depend on greenhouse facilities to carry out their research. This groundbreaking for the new complex represents the first step towards physically restoring this valuable and much-needed resource to support the scientists and the research that is carried out at BARC. FARB supported the event by picking up the tab for the reception.

Dignitaries speaking at the ceremony and participating in the groundbreaking included (left to right): Rodney J. Brown, Deputy Under Secretary, Research, Education, and Economics; Edward B. Knipling, Administrator, Agricultural Research Service; Phyllis E. Johnson, Director, Beltsville Area; Steny H. Hoyer, Representative, 5th District, Maryland; Jeanie Laserov (not visible), Field Representative for U.S. Senator Paul Sarbanes; Wanda W. Collins, Director, Plant Sciences Institute.

FAR-B's Educational Outreach Getting HOT!

During the past year, FAR-B's outreach has expanded into a variety of new venues. Last summer, FAR-B President, Bill Wergin, along with Jim Anderson, Associate Director of ARS' Plant Science Institute, and Dianne Odland, Outreach Coordinator for ARS Information Staff, hosted an exhibit at a back-to-school event held for K-12 PG County Science Coordinators, as well as high school biology, chemistry and physics teachers throughout the county.

The program, held at Northwestern High School in Hyattsville, MD, drew over 400. The exhibit, which focused on ideas for hands-on activities and resources featuring ARS research, was very well received. Including class sets, nearly 600 new subscriptions to *Agricultural Research* magazine, as well as numerous subscriptions to ARS' *Newslink* service, were requested.

"Our mission was to acquaint teachers with ARS research and to let them know that BARC is a goldmine in their own back yard," notes Wergin. "But this exhibit was just the first step in introducing the county's science leaders to ARS. Next, we hope to host programs for them here at BARC. They need to see our science in action!"

That next step has, in fact, already occurred—not only for P.G. County but for Howard County, as well. In October and December, FAR-B sponsored all-day retreats hosted by John Kucharski and his staff at the National Visitor Center. Science leaders at both the middle school and high school levels in both counties visited the National Visitors' Center, toured BARC, visited with BARC scientists, and learned more about student mentoring opportunities. Dr. Phyllis Johnson, BARC's director, was a featured speaker.

"What about Montgomery County...and Anne Arundel County...and the District?" you might ask. "They're on our agenda—we've made initial contacts," says Jim Butcher, FAR-B's Outreach Coordinator. "Our goal is to increase BARC's visibility to teachers in all of the surrounding area."

And what about elementary school? What about outreach involving direct interaction with the kids? Another success story! Recall that last spring, Butcher initiated an all-school "Science in Your Shopping Cart" training program at FAR-B's adopted school, Beltsville Elementary School (BES). Allan Stoner, Leader of BARC's National Germplasm Resources Lab, was the star of the show, making 30 classroom presentations highlighting how ARS research is wired into everyday life.

This year, Butcher is orchestrating another all-school challenge at BES. Jim Smith and Gary Beecher--both retired from the Beltsville Human Nutrition Research Center--along with Al Stoner will make classroom presentations. The focus: human nutrition. Stay tuned!

FAR-B members have also been involved in local exhibitions targeted to the professional community. Last spring, Smith assisted with an ARS Human Nutrition Research Program exhibit held at the Experimental Biology meeting—a multi-disciplinary, multi-society, biomedical meeting attended by nearly 16,000 conferees. Come fall, Smith, along with Nancy Thrush participated at ARS' American Public Health Association exhibit that targeted to 13,000 health administrators, physicians, and allied health professionals. Both meetings, held at the Washington Convention Center, prominently featured research conducted at the Beltsville Human Nutrition Research Center.

Odland says that "FAR-B's assistance at these events made a very valuable contribution and, she hopes, FAR-B members will consider participating in

future exhibitions. Their expertise, institutional knowledge, and experience are phenomenal. What a resource this group is to BARC and to all of ARS!"

FAR-B also supported the educational outreach events financially by picking up the tab for refreshments that included a luncheon and a breakfast for the visiting teachers.

By Dianne Oldland, ARS Information Staff

FAR-B Financial Report

FAR-B's overall financial status remained solid throughout 2004. Income from membership dues and contributions through the Combined Federal Campaign remained at a similar level to last year. Fortunately, income generated by the workshops and conferences that FAR-B cosponsored during the year brought in additional funds that can be used to support our activities in the coming year.

The distribution of FAR-B's expenditures for 2004 were 43 percent for Research, 44 percent for Education, 11 percent for Outreach, and 2 percent for Administration.

Vernon Pursel, Treasurer

Membership Update

Once again it is time to send in your annual dues payment. Dues for Personal Members are still $20.00 and Associate Member dues (employee) are still $10.00. Remember, FAR-B dues are tax deductible; in addition, there isn't another organization anywhere that spends 98 percent of every dollar on the program and only 2 percent for administrative costs. Mail your dues to FAR-B, Inc, P.O. Box 1061, Beltsville, MD 20704-1061. I hope you will also take time to suggest that a friend or coworker also become a FAR-B member. Your continued support is appreciated!

Vernon Pursel, Membership

2004 CFC Report

In December, we completed our 2004 Combined Federal Campaign (CFC) at Beltsville. In the Washington area, the CFC had one of its most successful campaigns to date. Thanks to the remarkable generosity of local federal employees, the campaign has pledges over $51 million, which exceeds any campaign in the history of the Combined Federal Campaign of the National Capital Area. We won't know how successful we were at Beltsville until sometime in March. One of our problems at Beltsville is that many employees don't know that FAR-B is listed as a local charity in the national capital area.

For the first 3 years, we annually distributed about 100 posters to the various labs at Beltsville. A recent analysis showed that only about 15 percent of our professional employees contributed to the campaign. In 2004, we tried a new approach, our committee e-mailed a large number of BARC employees. Jim Smith contacted people in Human Nutrition; Vern Pursel did the same for the Animal Science and Natural Resources Institute as did Phil Kearney for the Plant Science personnel.

FAR-B looks forward to working with BARC in 2005 in the areas of research, education and outlook programs. One of our successes in 2004 has been outreach programs with local elementary and high schools to expose students to the importance of modern high-tech American agriculture and to prepare for exciting future careers in scientific research.

Phil Kearney, CFC Chairman

FAR-B Supports High Priority Systematics Research at BARC

At its December meeting, The FAR-B Board of Directors voted to commit up to $25,000 as a one-time grant to support high priority systematics research at the Beltsville Agricultural Research Center. BARC is one of the world's premier systematics research centers and is the home of 80 percent of all ARS systematics research and reference collections. Four laboratories (Systematic Entomology Laboratory, Systematic Botany and Mycology Laboratory, Nematode Laboratory, and Animal Parasitology Laboratory), built over the span of more than 100 years, house personnel, collections, and information systems--resources not duplicated elsewhere in the world.

BARC has identified systematics research as the number one priority program that requires strengthening this year -- not only because systematics is one of the cornerstones of modern biology but also because it is a necessary component in the effort to prevent the introduction and establishment of invasive species, also a high priority initiative.

The FAR-B Board studied and debated two proposals that were submitted for funding consideration: (1) an economic study, in cooperation with the University of Maryland, to provide administrators with real numbers to document the true value of systematics; and (2) the purchase of an entirely new computer-controlled remote microscope that has been designed so that specimens can be manipulated, examined, and photographed by anyone from anywhere in the world.

After considerable investigation and discussion, the FAR-B Board selected proposal two for funding.

One of the longstanding impediments faced by systematists is the necessity to move biological specimens between laboratories for research and service work. These activities not only take time and money, they also delay vital information from reaching users in a timely manner. Initial testing at the Systematic Entomology Laboratory has shown that the new technology can perform and it is now time to purchase the sophisticated microscope and associated software to implement the technology. When fully functional, scientists are BARC will be able to cooperate with laboratories throughout the world such as CSIRO in Australia and the Natural History Museum in London, England. In addition to FAR-B, funding will be provided by the USDA Animal and Plant Health Inspection Service and the Systematic Entomology Laboratory at BARC.

Systematics is one of the cornerstones of modern biology because it allows all living organisms to be identified and grouped by their similarities. It is of special importance to agricultural research because of the number of living organisms that affect the state of our agroecosystem.

FAR-B looks forward to learning of the benefits to systematics research as a result of our support of this project. Phyllis approved the FAR-B Board's decision to fund the microscope proposal in support of the systematic research initiative.

Ralph Bram, Vice President

In Memoriam

Malcolm J. Thompson

Malcolm J. Thompson, retired ARS chemist and a member of the ARS Hall of Fame, recently passed away after a very brief illness, while visiting relatives in Louisiana. He was 77 years old.

After serving in the U. S. Army, Malcolm attended Xavier University in New Orleans where he was awarded degrees in

Organic Chemistry. In 1962, he joined the staff of the Insect Physiology Laboratory in Beltsville, Maryland, where he became internationally recognized for his work with insect ecdysteroids, a group of steroid hormones that regulate molting in insects and other invertebrates. His broad knowledge of chemistry and biological systems led other ARS scientists to seek him out as an invaluable research collaborator.

Perhaps the most important and appreciated attribute of Malcolm Thompson was his firm belief in and strong commitment to team research, as evidenced by collaborative publications with 52 scientists in a wide range of disciplines. His willingness to assist others, both professionally and personally, has benefited a generation of postdoctoral associates and junior staff members.

Among his many honors, Malcolm was inducted into the ARS Hall of Fame in 1994, and in 2001 he was the recipient of the Sterling B. Hendricks Memorial Lectureship.

Malcolm is survived by his wife Louise and their three children.

Burton Y. Endo

Dr. Burton Y. Endo passed away on January 4, 2005.

From a humble background, including a few years at a relocation camp in Arizona during World War II, Burton Y. Endo grew to one of the most renowned nematologists of the Twentieth Century. His nearly 100 research articles focused on the ultrastructure of nematode development and plant-nematode interactions. This work remains some of the most highly cited nematological research.

Dr. Endo joined ARS in 1956 and arrived at Beltsville in 1963. In addition to his responsibilities as a nematologist, he served ARS as Director of the BARC Plant Protection Institute from 1974-1987, supervising eight different Beltsville labs. He retired in 1995 but remained an active collaborator for several years.

Honors bestowed upon Dr. Endo include being named a Fellow of the Society of Nematologists in 1988 and an Honorary Member in 2004. He was also awarded fellowship in the European Society of Nematologists in 1996--a rare honor for an American. The Helminthological Society of Washington bestowed upon him its Anniversary Award in 1997. Only three plant nematologists have received this honor in the award's 45-year-history. In 2002, he received the Henry A. Wallace award from the College of Agriculture of Iowa State University in recognition of his contributions to agriculture.

William Wesley Cantalo

William W. Cantelo died June 22 in his home in Fulton, Anne Arundel County. He was 77 and had Parkinson's disease.

Cantelo was a federal research entomologist for 40 years with the State Department and USDA's Agricultural Research Service. He spent many of them outside of the U.S. He began his federal career in 1956 when he worked for 5 years in Guam as a civilian employee of the U.S. Navy and the territorial government of Guam.

From 1961 to 1956, he was attached to the State Department and stationed in Thailand, where he was advisor to the Thai government. While there, he discovered a way to control the rice gall midge, a pest that attacked rice plants.

In 1966, he moved to St. Croix in the U.S. Virgin Islands where he worked for USDA and developed ways to eradicate the tobacco hornworm and other pests that preyed on crops. In 1971, he returned to the U.S. and was a researcher in the vegetable laboratory at BARC. He spent

13 years analyzing mushrooms and the insects that attack them. For his work on eliminating mushroom pests, he was presented several awards by the mushroom industry.

During his years at BARC, Cantelo wrote more than 80 research papers and frequently presented his findings at international symposiums. He retired in 1996.

He was born in Medford, Mass., and graduated from Boston University in 1948. He received a doctorate in entomology from the University of Massachusetts in 1952. In 1991, he was elected to the Collegium of Distinguished Alumni of Boston University.

Survivors include his wife of 45 years, Carol Crinklaw Cantelo of Fulton; three children, Pamela Newman of Hanover in Anne Arundel County; Ross Cantelo of Boise, Idaho, and Amy White of Thousand Oaks, Calif.; a brother and four grandchildren.

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THE FAR-B NEWS

June 2005 *Editor: Hank Becker*

President's Message

Dear Friends and Colleagues,

The 19th annual meeting of Friends of Agricultural Research--Beltsville was held on May 10 in the main auditorium of the Henry A. Wallace, Beltsville Agricultural Research Center. The highlight of the meeting was our quest speaker Dr. Antoinette Betschart, Associate Administrator for Research Operations, Agricultural Research Service.

Dr. Betschart spoke on the national research outlook for the agency and addressed the current issues and problems facing the agency. Her address provided a fine update for our members and the research staff at BARC. She discussed changes in the administrative staff in ARS and specifically addressed the changes in key personnel and budget thrusts in the agency and what are some of the future changes we can expect.

Dr. Phyllis Johnson, whose comments are included below in this newsletter, summarized some of the issues facing BARC. The status and activities that currently face FAR-B were briefly discussed and are as follows:

Vern Pursel, our Treasurer, submitted a budget for 2005, which has been approved by the Board. Our projected income will be around $26,000, which will be used for research activities 68 percent, education 17 percent, outreach activities 9 percent, facility improvement 5 percent, and administrative overhead 1 percent. The 1 percent administrative cost is for printing and mailing the FAR-B Newsletter.

Vern also handles membership duties. Our membership continues to fluctuate at about 200 members. Roughly half of our members are retirees and the other half are non-voting associate members who are BARC employees.

Phil Kearney, a former President of FAR-B, is Chair of the Goals and Objectives Committee and also serves as our Combine Federal Campaign (CFC) Chair. As you may know, Phil was chiefly responsible for making FAR-B eligible for CFC contributions a few years ago. As a result, in 2005 FAR-B will receive nearly $8,000 from contributors who designate our organization as recipients on the CFC forms. We thank those of you who participate in this way and ask that you continue to remember us during future CFC campaigns.

Jim Butcher, who serves as our Legislative Liaison, assembled the congressional testimony to Congress. In our testimony to the Subcommittees on Agriculture in the U.S. Senate and the U.S. House of Representatives, the importance of funding for systematic research was given the highest recommendation. In addition, we emphasized the importance of continued funding for recent "add on" research programs that were mandated by Congress. About 15 programs at BARC could be affected if these "add ons" are not continued.

The final emphasis in the testimony recommended construction funds to

complete Phase III of the Beltsville Human Nutritional Center. This year FAR-B took the testimony a step further than usual. A group consisting of Darwin Murrell, Essex Finney, and Jim Butcher presented our testimony and related information in person to staff officers of Senators Paul Sarbanes and Barbara Mikulski. We owe a depth of gratitude to those who assembled the Congressional Testimony and delivered it to Congress. They pointed out that, since 1997, while all ARS funding has increased 52 percent; BARC funding has only risen 5 percent. As a result, funding for programs at BARC has not kept up with the inflation rate and the total number of Full Time Employees has fallen from more than 1,400 in 1997 to below 1,200 in 2003.

Nancy Thrush--our newest Board member--has taken it upon herself to develop a directory of all BARC retirees. The directory, which could be used to locate old friends and colleagues, may also serve as a source for recruiting new FAR-B members. If you are in contact with any former BARC employees, Nancy would appreciate receiving their names and/or addresses. She can be reached by email at *nancyethrush@aol.com*.

Besides these activities, your FAR-B Board has made several attempts to strengthen the research programs in systematics at BARC. To help bring attention to the importance of identifying, preventing and controlling invasive species, FAR-B recently allocated $25,000 as partial support to purchase a microscope and software that will allow scientists from around the world to simultaneously view on their own office PCs, images of insects that are being scanned at Beltsville.

Vice President Ralph Bram introduced the Innovative Ideas Program. This program provides a monetary award, which is meant to serve as seed money, to initiate a new or novel pursuit. The program is open to any/all workers at BARC.

FAR-B, under the leadership of Jim Smith and Jim Butcher, helped institute, at Beltsville Elementary School, a remarkable science enrichment-outreach program on human nutrition. "Helped institute" is required wording, for the well received presentations that were possible only because of the generous backing of BARC, the Beltsville Human Nutrition Research Center, the ARS Information Staff, FAR-B members, and other volunteers. If any one person may be singled out for special recognition, she is ARS Outreach Specialist Dianne Odland of the Information Staff.

FAR-B did not have plans to sponsor a major symposium this year; however, we did work with the Tomato Breeders Round Table group, which held their successful meeting last fall in Annapolis. In addition, we provided support for the Distinguished Lecture Series, that Dr. Johnson has initiated. At the present time, we are working with Jeff Aldrich, who is Chair of the annual meeting of the International Society of Chemical Ecology. FAR-B will assist in sponsoring this meeting, which will be held in the Washington, DC area this summer.

Our annual meeting adjourned after Mort Beroza, Chair of the Nominations Committee, called for nominations for two Board vacancies and the election of a new President. James Anderson and Allan Stoner--two esteemed scientists who recently retired at BARC--were nominated and elected to the Board by acclamation. Likewise, K. Darwin Murrell, who needs no introduction to FAR-B members, was elected as your new Board President. He will take office in January 2005. Congratulations to all three individuals!

Finally, I would like to take this opportunity to thank the Board members who have supported my Presidency these past 3 years. Their co-operation, initiatives and enthusiasm certainly made my job an easy and enjoyable one!

As always, if you have any thoughts on any activities that you would like to see FAR-B engage in, we would be pleased to hear from you. Please feel to contact FAR-B by email or phone--listed under our board of directors.

Sincerely,

William B. Wergin, President

Area Director's Message

By the time this Director's Message goes to print, hopefully we will have had another successful Public Field Day at BARC. This year we are hopeful that it will stay dry!

Dr. Robert E. Davis, Research Leader of our Molecular Plant Pathology Laboratory, was elected to the National Academy of Sciences in early May. This is recognition comes on the heels of his receiving a Presidential Distinguished Rank Award from President George Bush. This means that Dr. Davis was in the upper one percent of all senior-level federal employees. Congratulations to Bob on both of these recognitions!

The Competitive Outsourcing process has ended since both The Facilities Services and Animal and Plant Research Support Services (officially the Research Support Services) Most Efficient Organizations (MEO) have been in place since May 15. We are expecting few glitches as these two organizations proceed in delivering services to BARC. Thanks to the tremendous support of headquarters Human Resources Division, all existing employees were employed in the new organizations.

Thirty-nine employees participated in the buy out/early retirement process which greatly helped in placing the other employees in the new organizations. Wayne Funkhauser is the Program Manager for Facilities Services and Keith Hummel is the Program Manager for Research Support Services. BARC has created a new group of Quality Control Inspectors--managed by Frank Messineo--that will monitor the services provided by the MEO's.

The Beltsville Area Distinguished Lecture Series continues this year. In early May, Dr. Rita Colwell, Chairman, Canon U.S. Life Sciences, Inc. and Distinguished Professor at both the University of Maryland and Johns Hopkins University spoke on "The Dilemma of Environmental Pathogens in a Time of Bioterrorism." Later in May, Dr. James O. Hill from the University of Colorado at Denver spoke on "Obesity: The Threat to Health in America."

On June 9, the last Lecturer for the spring session will be Dr. Norman J. Rosenberg, Joint Global Change Research Institute at Battelle. He will be speaking on "Climate Change and Agriculture."

Lastly, we would like to note the retirement of Dr. Allan Stoner, Research Leader of the National Germplasm Resources Laboratory. Al came to BARC in June 1965 and held several positions including a 2 year detail as Director of the U.S. National Arboretum. Al plans on staying in the Maryland area during his retirement.

Phyllis Johnson, Director

Membership Update

Many thanks to those members who answered our January request for annual dues payment. Unfortunately, it will be necessary to resend a dues reminder note in the next few weeks to those of you who most likely set the dues notice aside with the hoard of junk-mail items that arrive in your mailbox each week.

Dues for Personal Members are still just

$20.00 and Associate Member dues for federal employee are still $10.00.

Remember, FAR-B dues are tax deductible. In addition, there isn't another organization anywhere that spends 98 percent of every dollar on the program and only 2 percent for administrative costs. Please mail your dues to FAR-B, Inc, P.O. Box 1061, Beltsville, MD 20704-1061. Your continued support is appreciated as FAR-B's activities are an important part of a healthy BARC!

Vernon Pursel, Membership

Financial Report

FAR-B's financial health continues to remain strong with the recent good news from the November, 2004 pledges to Combined Federal Campaign amounting to $7,848. However, the bad news is that FAR-B will need to dip into our reserve funds to cover the $25,000 expenditure that we have promised the Systematic Entomology Laboratory for the purchase of an entirely new computer-controlled remote microscope. This vital piece of equipment has been designed so that insect specimens can be manipulated, examined, and photographed by anyone from anywhere in the world. Our one-time expenditure will leave us with a $21,000 budget deficit for this year. However, isn't that why FAR-B has reserve funds?

Vernon Pursel, Treasurer

BARC Poster Day—A Resounding Success

Once again FAR-B assisted in making the annual Poster Day event a resounding success by providing a tent adjacent to the ARS Visitors Center so that the high school interns could display their posters alongside of the BARC post-docs and newer researchers. This year 23 Eleanor Roosevelt High School seniors displayed their posters that described their research efforts in BARC laboratories.

Dr. Nichole O'Neill, Intern Coordinator for BARC, assisted FAR-B in providing six judges who evaluated the posters and FAR-B then provided $300, $200, and $100 cash awards to the three with the highest overall scores. The first place award went to Adelle Lykes for her project "Antioxidant Capacity of Blackberries", (mentor- Dr. S.Y. Wang, Fruit Lab.). Second place award recipient went to Ashley Robinson for her project "Effect of *Bacillus Thuringiensis* on the Mortality of Sweet Potato Whitefly", (mentor- Dr. Dale Gelman, Insect Biocontrol Lab.). Third place award went to Ugochi Madubata for her project "EST-PCR Markers in Determining the Genetic Relatedness of Rabbiteye Blueberries", (mentor- Dr. Jeannie Rowland, Fruit Lab.).

Vern Pursel, Membership

FAR-B Meets Senate Staffers Regarding FY06 Budget

For the past several years, FAR-B has submitted "Outside Witness Testimony" to support the annual appropriations process generally for ARS and especially for BARC. Our distribution normally includes the entire Maryland Congressional delegation and members of the House and Senate subcommittees for agricultural appropriations. We also submit testimony to subcommittee staff offices. In all, we normally distribute about 40 copies of our testimony to offices of the U. S. Congress.

This year, we decided to take the process a step further. Though we had received favorable feedback from Senator Barbara Mikulski and others in previous years, we decided to meet this year her staffers and those of Senator Paul Sarbanes of Maryland.

On March 14, a FAR-B delegation of Darwin Murrell, Essex Finney, and Jim Butcher met with staffers Tony Lawrence (Mikulski) and Jim Wood (Sarbanes) in their Capitol Hill Offices. We were warmly received. All parties, we believe, would agree the meetings were productive, filled a valuable purpose, and well worth every one's time and effort. Lawrence noted that the information we gave him would help him make the BARC case to Senator Mikulski when they discuss future appropriations.

We based our presentation on a briefing paper Darwin Murrell had prepared--drawing heavily from our prepared testimony. The paper emphasized Systematics, Add-ons omitted from the proposed budget, and Construction funds for renovating Building 307 (first human nutrition building) and building a combined swine-immunology research facility.

Both staffers alluded to regular and frequent visits by farm commodity groups to their offices. They wondered if such groups could help BARC. Darwin explained the answer is "yes," while cautioning that commodity groups naturally trend toward short-term, emergency-based perspectives rather than the long-term, structural needs at BARC.

Both speculated that the staff of the Senate Subcommittee on agricultural appropriations would benefit from a visit to BARC. Staffers are most likely to be available during Congressional recesses, Wood said. FAR-B will follow-up with BARC regarding this suggestion. The staffers asked for clarification regarding the President's budget proposals for BARC, Frederick, and the U.S. National Arboretum. BARC was following up through appropriate channels.

The crux of all this is that FAR-B has opened an effective new channel to promote the common interests of FAR-B and the Beltsville Agricultural Research Center with the U.S. Congress.

Jim Butcher, Legislative Liaison

Friends of Agriculture Come to Beltsville Elementary

Reprint April 21, 2005, *Prince George's County Gazette.*

U.S. Department of Agriculture volunteers came to Beltsville Elementary School Thursday with a shopping cart full of grocery boxes, bottles and bags.

Friends of Agricultural Research - Beltsville (FAR-B) used the shopping cart contents to teach the pupils about the USDA's new dietary guidelines and other nutritional information.

Presenters hold props that they used for presentations to students.

"How much sugar do you think is in a Big Gulp?" USDA nutritionist Kay Behall asked Kathleen Hopkins' sixth-graders. The children guessed and then counted out the sugar packets that Behall had placed inside of a Big Gulp cup. They discovered that 61 packets are the equivalent to 61 teaspoons or one and one-fourth cups of sugar.

"That's enough to kill a rat," said USDA nutritionist Daniel Scholfield. Large amounts of sugar over an extended period

of time have been shown to wreak havoc on organs, he said.

"The program teaches them about how to make smart decisions at the grocery store and read food labels," said Ginger Butcher, a parent whose father-in-law Jim Butcher is FAR-B's outreach chairman.

Above is Gazette reporter Meghan Mullen's take on a remarkable science enrichment-outreach program that FAR-B has sponsored and helped institute at Beltsville Elementary School this school year. "Helped institute" is required wording, for the series of well received human nutrition presentations that Mullen refers to was possible only because of the generous backing of BARC, the Beltsville Human Nutrition Research Center, the ARS Information Staff, FAR-B members, and still other dedicated volunteers. Though officially the sponsor-coordinator, FAR-B drew enormously from Beltsville resources.

If any one person may be singled out for special recognition, it is ARS Outreach Specialist Dianne Odland. Dianne not only drafted the superb script that became the benchmark guide for every presentation, her apparently inexhaustible energy, drive, and good cheer constantly fueled us forward. FAR-B is evaluating this outreach activity for possible future applications.

FAR-B is exceedingly grateful to each of them for sharing their time and special talents.

By Jim Butcher

CFC Drive—A Big Success

Thanks to our many contributors at BARC, we had a very successful 2004 CFC campaign. We raised $7848.88, our second largest total in 4 years. Several factors are responsible for this generous offering. For the first time we directly contacted all employees at BARC by e-mail. We have never had this coverage before. Using e-mail we also saved money normally reserved for printing colored posters.

Another new approach this year was to request certain Board Members to contact personnel in their former Institutes--Vern Pursel for Animal Sciences and Natural Resources, Jim Smith for Human Nutrition, and Phil Kearney for the Plant Science Institute.

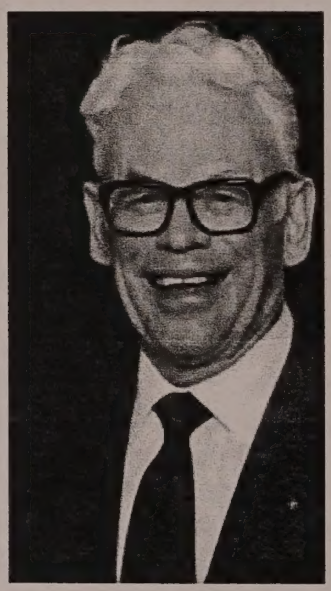
One of our strongest efforts in FAR-B this past year was our outreach program. The outstanding success of this program probably played a role in our CFC contributions. We were notified recently that FAR-B was approved for participation in the 2005 CFC campaign. This announcement reflects on the strong research and educational programs underway at BARC and the cooperatives efforts in FAR-B to assist in these programs.

Phil Kearney, CFC

In Memoriam

ANGUS HANSON

1922 – 2005



Former BARC Director Angus Hanson died on April 29. He was born in Chilliwack, BC in 1922 and obtained a BSA (Major in Agronomy) in 1944. His graduate work in the areas of genetics, cytogenetics, plant breeding and applied statistics led to the award of an MSc degree from McGill University in 1946 and a PhD from Pennsylvania State University in 1951.

Initially his career was in academia as a Lecturer and Assistant Professor at McGill University, where he taught under-graduate and graduate courses in applied statistics, forage crop management and breeding and was in charge of forage crop research program at Macdonald College. Then, in 1949 Dr Hanson took up a position as Geneticist and Agronomist at the U.S. Regional Pasture Research Laboratory, State College, Pennsylvania, which led to a distinguished career as a scientist and administrator with the USDA Agricultural Research Service.

As Project Leader in charge of grass and legume breeding and cytogenetics at the Pennsylvania Laboratory, he conducted research on the breeding behavior and cytogenetics of orchard grass, canary grasses, fescues, brome-grasses, ladino clover, and alfalfa. In 1953, he took up a senior research position at BARC, where he led a program on grass and turf research in the Forage and Range Research Branch, Crops Research Division. In 1965, he became Chief of the Forage and Range Research Branch, Crops Research Division, at the Center. In that position, he was responsible for a national program on forage and range improvement. The program included basic and applied research on alfalfa, clover, special legumes, grass and turf, humid pastures, arid pasture and range, and seed production.

Then in 1972, he was named Center Director. He was responsible for organization, operations, and administration of integrated research program involving about 450 scientists and 800 support personnel.

Following retirement from USDA in 1979, Dr. Hanson became Vice-President and Director of Research of Waterman-Loomis Co, Highland, Maryland, until 1986, with responsibility for research planning, coordination and conduct of research on alfalfa; and for organizing programs at three research stations to meet the needs of both domestic and foreign markets for adapted varieties of alfalfa. He later joined the board of that company and served as a board member until 1992. From 1992 to 1993, he was a consultant to the National Academy of Sciences, National Research Council.

During his distinguished career, Dr. Hanson received many awards. Most notable were: Superior Service Award, USDA, 1961; Merit Certificate, American Forage and Grassland Council, 1971; Medallion Award, American Forage and Grassland Council, 1972; Merit Certificate for Outstanding Performance, USDA, 1979; Distinguished Service Award, USDA, 1979; and Distinguished Grasslander Award, American Forage and Grassland Council,1988. In addition, he was elected a Fellow of the American Society of Agronomy, the American Association for the Advancement of Science, and the Crop Science Society of America. He served as President of the Crop Science Society of America, 1966-67. Dr. Hanson lived with his wife Helen (Crook) in Silver Spring. They have two sons and one daughter.

MAYNARD RAMSAY

Maynard Jack Ramsey, 90, and entomologists and internationally recognized beetle expert with USDA for many years died of pneumonia on March 20 at the Arden Courts nursing home in Silver Springs. He lived in Bowie.

Ramsay was born in Buffalo and graduated from the University there with a bachelor's degree in biology and a master's degree in mammalogy. In 1941, he received his doctorate in entomology from Cornell University where he did research on the Mexican bean beetle and its damage to crops in the southwest.

In 1941, he started work with USDA and spent the World War I years on assignment in St. Paul, Minn. In 1945, he moved to New York City and served for the next 23 years as agricultural inspector

and supervisor with the Agriculture Quarantine and Plant Health Inspection Force.

An instructor in the USDA's Four Point Program, he taught graduate and postdoctoral students from around the world on the intricacies of controlling imported insect pests. In 1968, he moved with his family to Bowie after transferring to ARS in Beltsville.

During his 36 years in government service, Ramsay was often called upon to provide his beetle expertise to the Smithsonian Institution and to entomological organizations worldwide.

Ramsay retired from USDA in 1977 but continued to consult on entomological matters. He was listed in *American Men of Science* and *Who's Who in America* and was a member of the entomological societies of America and Washington. He was past president of the Insecticide Society of Washington.

Ramsay's wife, Alberta June Ramsay, died in 2003. Survivors include five children: Paul of Manassas, Va.; Craig of Murfreesboro, Tenn.: Leigh of Poway, Calif.; Bruce of Takoma Park and Carolyn Sue Bly of Arkport, N.Y.; 10 grandchildren and 8 great-grandchildren.

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Dedicated to promoting the research and education programs of the Henry A. Wallace Beltsville Agricultural Research Center, Beltsville, MD

THE FAR-B NEWS

January 2006 *Editor: Hank Becker*

President's Message

Dear Friends and Colleagues,

As your incoming president and a former BARC director, I want to emphasize how excited I am about the opportunity to sit on the FAR-B side of the table. Beginning in 1987, as director, I enjoyed the opportunity to work with FAR-B on projects and issues that were of utmost importance to the success of our great research center. In those days, FAR-B was finding firm footing, refining its voice, defining its role while on its way to becoming the effective advocate for the Beltsville Agricultural Research Center that it is today.

It has been rewarding to me to watch the organization gain stature, to grow its effectiveness. Due in large measure to the exceptional leadership of such recent presidents as Phil Kearney, Ralph Bram, and Bill Wergin, FAR-B has taken great strides toward fulfilling its essential purpose, to provide real and effective support to this great research institution

Those past presidents are tough acts to follow. Nevertheless, I am enormously encouraged and reassured by the superb effort and support of the entire Board, which includes Vern Pursel, Jim Butcher, Essex Finney, Allan Stoner, Hank Becker, Nancy Thrush, Morton Beroza, and Jim Anderson--along with those past presidents Kearney, Bram, and Wergin. The collective enthusiasm, initiative, and wisdom of the Board supply the critical

force that sustains FAR-B, and drives the organization forward.

Moreover, FAR-B is blessed to have the regular support of two extraordinary ARS employees. Dianne Odland of the Information Staff is central to the success of our award-winning community outreach effort. And research scientist Dave Chitwood provides the vital liaison link between the Board and the BARC Director. I am enormously grateful for and impressed by the resourcefulness that these outstanding employees bring to the table.

I am fortunate to work with such a dedicated group!

Now, let me turn for a moment to less rosy news. I'm sure it comes as no surprise that BARC now faces a very challenging budgetary climate. This is a time of tightly controlled government funding--especially for such activities as research, and the consequent belt-tightening required at BARC is a matter of great concern.

In this difficult time, FAR-B has re-doubled its efforts to help the Area Director in any way possible for FAR-B to blunt and mitigate the negative effects of budgetary shortfalls. Our efforts include emphasizing to various audiences how essential it is to the national well being to sustain BARC's research programs--a point we need to drive home to the general public, to the

agricultural sector, and, most importantly, to the political interests.

Consequently, we are striving to grow our financial assistance programs for BARC scientists, and to expand our science education outreach activities for schools and communities.

Obviously, our financial capability directly determines the level of support that FAR-B can muster for these activities. Hence, we are engaged in several income boosting efforts. One obvious way to generate more income is to expand our dues-paying membership.

FAR-B Friends of Agricultural Research-Beltsville, Inc.

FAR-B is a non-profit organization dedicated to promote –

Research,
Educational,
and
Outreach Programs

at the Henry A. Wallace Beltsville Agricultural Research Center (BARC), Beltsville, Maryland.

New Membership Committee Chair Allan Stoner is taking the lead in putting together a new list of people who may have an interest in BARC. We will use that list for recruiting new members. To aid in this, Phil Kearney, Vern Pursel, and Hank Becker have designed a beautiful new FAR-B recruitment brochure. (See the FAR-B website— http://www.ars.usda.gov/ba/far-b — if you did not receive a copy of the new brochure in your membership renewal notice.)

Another major fund raising activity is the one led by Phil Kearney--our participation in the annual Combined Federal Campaign. Past CFC campaigns have proved to be very productive. We are indebted to Phil for his leadership and to all those generous employees, who have donated to FAR-B. We also are looking at expanding our "Sustaining Member" category, which is designed for large organizations such as businesses and non-government organizations.

You can help FAR-B in its mission to aid BARC by taking every opportunity to discuss FAR-B's mission and the importance of membership to others--whether employees or community members. Another important contribution is volunteering your time and knowledge to FAR-B activities, especially the Outreach Committee's programs. (See "Beltsville Elementary School Needs Help" on page 6 of the newsletter.)

I wish all of you a wonderful 2006, and look forward to joining with you in working for the enhancement of BARC.

Warm regards,

Darwin Murrell, President

Area Director's Message

Happy New Year to everyone. This year, 2006, will be BARC's 96th year. We are already through the first quarter of the fiscal year, having finally gotten an appropriation in November. We received only a small increase in our appropriation, about $1.6 million and we are awaiting an across-the-board reduction of about 1 percent when Congress returns and deals with a supplemental appropriation to fund recovery for Hurricane Katrina.

Within ARS, we are also expecting a one-time across-the-board assessment of about 0.8 percent to fund per diem costs for displaced ARS employees from New Orleans who are temporarily stationed at other locations while the Southern Regional Research Center is being cleaned up and repaired. While such an assessment cuts into the funds we have available for research, we are glad we can help. And we know all too well that the shoe could be on the other foot.

We anticipate being able to announce the arrival of a new Center Director for the Beltsville Human Nutrition Research Center sometime during January. This has been a long haul, since Dr. Joe Spence moved to NPS as an Acting Deputy Administrator shortly after 9/11.

Our new Poultry Facility has walls up, and we anticipate construction being done this spring. We also have three new greenhouses going up in Range 1 that are actually part of our recovery from the Sept 2001 tornado. And they too should be ready to use this spring. We are also progressing on construction of an insect-quarantine facility that was on the facility priority list in 1984!!

John Van de Vaarst, our Facilities Director, retired at the end of October, and we are currently evaluating the duties of that job to make sure it will meet current needs, before we go out on the street to recruit. Our complex and aging facilities make such a job a critical one.

We continue to have a terrific staff of scientists and support people here, and 2005 was a great year. Dr. Bob Davis, RL of the Molecular Plant Pathology Lab, was elected to the National Academy of Sciences. Dr. JP Dubey of the Animal Parasitic Diseases Lab is the most-cited scientist in animal science globally for the last 10 years. And 20 percent of our GS-15 scientists are in the top 1 percent for citations in agricultural research worldwide. With outstanding people like these, I know that 2006 will be another banner year for science at BARC.

Phyllis Johnson, Director

FAR-B Membership

At this time FAR-B membership is 178. Of these, 102 are patrons or personal members, and 76 are non-voting associate members who are BARC employees.

During 2006, the Board of Directors anticipates making a concerted effort to substantially increase the membership in all categories, including Sustaining Members. To help accomplish this, we are developing a database with the names, addresses and phone numbers of as many retirees and former BARC employees as we can identify. We then plan to contact non-FAR-B members and appeal to them to join.

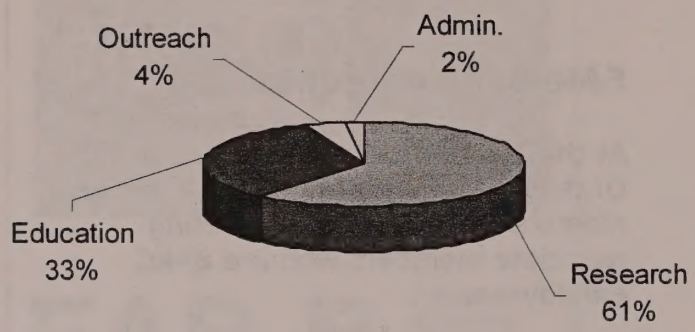
In addition to using the database to help recruit new FAR-B members, we anticipate it will be useful to BARC management and ex-employees who are trying to locate someone's address and/or phone number.

Allan Stoner, Membership Chairman

Financial Report

Although FAR-B had to dip into financial reserves this year to cover the $25,000 to assist the Systematic Entomology Laboratory in the purchase of the computer-controlled remote microscope, we had an exceptional year financially on nearly all fronts.

First, our CFC and other member contributors gave us a nice boost compared to last year. Second, FAR-B's assistance paid off quite well for handling the financial arrangements for the 21st Annual Meeting of the International Society of Chemical Ecology last summer in Washington D.C. Third, interest on FAR-B's investments increased three-fold this past year.



In addition, our dues collections were up slightly this year, even though our number of members continues to gradually slip. It's always nice to see our income increase across the board, so that income can keep abreast of our financial support of worthy programs and events at BARC.

The graph above shows the distribution of FAR-B's expenses. Please note that only two cents of every dollar goes to administer FAR-B's program, and much of that is for our printing and mailing The FAR-B News to the membership.

Vernon Pursel, Treasurer

FAR-B Receives President's Volunteer Service Award

It isn't everyday that a volunteer organization receives The President's Volunteer Service Award. But, then, the resources of FAR-B when combined with the clout of BARC and its Beltsville Human Nutrition Research Center, a retired University of Maryland professor, an assist from the National Agricultural Library, and the help of still others, form no ordinary enterprise.

As reported previously in this newsletter, for the past two school years FAR-B and its BARC collaborators have presented science enrichment programs to students and teachers at Beltsville Elementary School. One year, we presented a tailored overview of the popular *Science in Your Shopping Cart* publication and video. Former BARC scientist Allan Stoner, now FAR-B board membership chair, carried the lion's share of the instructor load. In what seemed a natural follow-on and using a slightly more team-oriented approach, we presented our Human Nutrition program the second year. Students and teachers lapped up these targeted presentations, asked for more.

The educational pay-offs to this high-performing, minority-majority public school are enormous. Whereas Beltsville Elementary students would have received virtually no science lessons in their regular curriculum, every student in grades 1 to 6 received a full hour of illustrated science instruction delivered teams by FAR-B and BARC scientists. Students received not only illustrated science instruction, they also received related publications and other materials to use back in the classroom or at home. The best student posters were on display at the 2005 BARC Field Day.

This fine work has not gone unnoticed or

unrewarded. During this past summer, we received word that the President's Council on Service and Civic Participation had approved the school's application to present the President's Volunteer Service Award to FAR-B. The citation reads:

Presented by the President's Council on Service and Civic Participation to

Friends of Agricultural Research – Beltsville

In recognition and appreciation of your commitment to strengthening our Nation and for making a difference through volunteer service.

In a November ceremony at the school, the following team members received a personal copy of the certificate, each accompanied by a beautifully struck lapel pin: Allan Stoner, Jim Smith, Nancy Thrush, Richard Ahrens, Jeanette Baylor, Betty Li, Jim Anderson, Jay Green, Evelyn Lashley, Kay Behall, Daniel Scholfield, Jim Butcher, and Dianne Odland. Well done!

FAR-B is well on its way to planning a new science enrichment theme for the current school year. Our planning committee has met with school officials, and has agreed to work up a presentation that we are calling for now "Life Sciences—Animals." Preliminary plans call for exhibit-presentations featuring agricultural animals, entomology, parasitological, diseases, and other ideas.

All FAR-B members and interested parties are invited to participate in these activities. The school is constantly on the outlook for tutors, by the way. If you live in the general area and have a little time to invest in a worthy cause, please give us a buzz. Jim Butcher is the outreach chair, but any board member can steer you in the right direction.

Jim Butcher, Outreach Chair

National Visitor Center Highlights for 2005

In 2005, several groups visited NVC including:

Chesapeake Bay Day: the Hawaiian Agricultural Leadership delegation; Florida fire fighters' Olympics; 50 home economists from Fairfax City Teachers Food and Consumer Services; a group from Prince Georges Community. College; Trinity University middle school science teachers; George Mason University students: students from Anne Arundel Community College Culinary School; the American Veterinarian Biologics Association and seniors from Asbury Village.

On the international front, the center hosted visitors from Africa and India; several Chinese delegations; the Pakistan Council of Research in Water Resources; a delegation from Spain; and a group from Thailand.

They also gave tours to a woman whose father, Charlie Lambers, helped to build the Log Lodge for the Civilian Conservation Corp and a physician working with terrorism. Also several troops that have been wounded from Bethesda Naval Hospital, and Walter Reed Hospital were given tours.

In January, John Kucharki retired as head of the NVC. Ruth Coy of the Information Staff is acting until the position is filled.

Jay Green, National Visitor Center

CFC Report

We are preparing our application for the 2006 Combined Federal Campaign. This application receives an in-depth review at CFC headquarters in Washington.

For the last, years we have been selected to participate in the campaign. There are several reasons why have we been selected over other applicants. First we are a very efficient organization. Our overhead costs are 2 percent of our total budget. In other words, we return 98 cents to BARC for every dollar donated.

Some big organizations have overheads of over 50 percent. One reason we are successful is that we are an all-volunteer organization. We have no paid employees. All of our databases are kept and updated on Board member's personal home computers.

The main reasons we are successful are the scientific and educational programs we sponsor at the center. Our outreach programs are a huge success. We are in the process of planning the 2006 outreach program. Plans are underway to revamp and upgrade our awards program. Others programs will be reviewed and upgraded over the next year.

Phil Kearney, CFC Chairman

Beltsville Elementary Needs You

Beltsville Elementary School (BES) needs FAR-B's help! They are in dire need of tutors/mentors to help students one-on-one with reading and math. This involves 1 to 3 hours per week in the Reading Lab and/or classrooms at BES during school hours (7:45 a.m. to 1:45 p.m.). Training and materials are supplied.

Please call or e-mail Maggie Schmidt, Reading Specialist and Volunteer Coordinator at (301) 572-0630, x 242; mschmidt@pgcps.org.

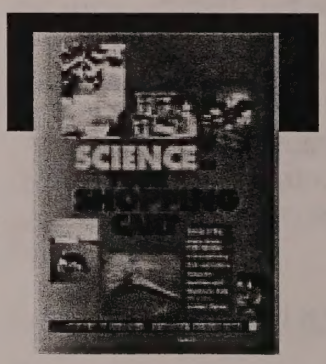
Want to help but time is limited? Sign up as a quizzer for MINDCORE for just 2 hours on Wednesday, February 15, either 8:00 to 10:00 a.m., 10:00 to 12:00 noon, or 11:30 a.m. to 1:30 p.m. in the BES gym. Contact Maggie Schmidt for details.

Dianne Odland, ARS Information Staff

SCIENCE IN YOUR SHOPPING CART REVISED AND NOW REPRINTED

A revised edition of the highly successful ARS publication, *Science in Your Shopping Cart* (USDA Program Aid 1558), came off press in October 2005. The first edition was written, photographed, and designed by ARS Information Staff in 1996 to help explain to nonfarm, nonagribusiness audiences how agricultural research benefits our everyday lives.

This edition went through several printings totaling well over 100,000 copies and has been a perennial favorite of, among others, the USDA Cooperative State Research, Education, and Extension Service's Ag in the Classroom program.



The revision updates facts and figures, replaces some ARS accomplishments with other, more recent ones, puts a bit more emphasis on ARS nutrition and food safety research, and comes with a few new photographs and a new cover.

ARS funded a press run of 40,000 copies, most of which have been distributed to ARS field locations for redistribution to customers, stakeholders, and partners. CSREES's Ag in the Classroom funded an additional 50,000 copies for distribution to their state partners to use in local AITC programs.

While supplies last, single copies are available by emailing Lynda Welsh lwelsh@ars.usda.gov. Give your full mailing address and specify that you're ordering *Science in Your Shopping Cart*. An Acrobat PDF of the revised book is available at http://www.ars.usda.gov/is/np/shopcart/shopcartintro.html.

Ruth Coy, Chief of Information Products and Services Branch, ARS Information Staff

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In Memoriam

SAMUEL ASEN

Samuel Asen of Chevy Chase, Maryland, died on Monday, January 23, 2006. Sam began working at the USDA in 1955 and retired in 1985. His research focused on determining the biochemical basis of flower color.

The three-man team of Bob Stewart (genetics), Sam Asen (physiology), and Karl Norris (engineering) discovered that flower color was due to the binding of specific colorless molecules (co-pigments) to the anthocyanins pigments.

They also discovered that the color of the anthocyanin/co-pigment complex was determined by pH. As the pH became more alkaline, the color turned bluer. The research was foundation for the current experiments throughout the world on genetically engineering a blue rose.

KARL von VORSE KROMBEIN

Karl von Vorse Krombein, 93, a retired senior scientist and world-renowned entomologist with ARS and the Smithsonian Institution, died on September 6, 2005.

An expert on wasps, he discovered many species in the United States and Sri Lanka. His professional colleagues around the world named almost 90 species of insects after him. He named two of his own discoveries after his wife and one of his daughters.

He worked for USDA from 1941 until 1965, serving for almost 15 years as its chief of taxonomic investigations for hymenoptera or wasps.

In 1965, he moved to the Smithsonian as chairman of the entomology department, a post he held until 1971. He became senior entomologist in 1971 and senior scientist from 1980.

He retired in 1993 but kept an office at the Smithsonian and continued to work full time until 1999.

He wrote or co-wrote more than 210 technical monographs, revisions and shorter papers and several books on wasps and bees.

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Dedicated to promoting the research and education programs of the Henry A. Wallace Beltsville Agricultural Research Center, Beltsville, MD

THE FAR-B NEWS

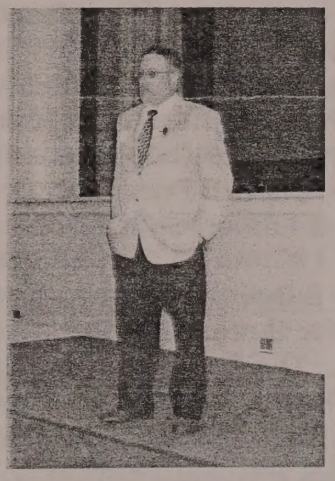
June 2006 *Editor: Hank Becker*

President's Message

Dear Friends and Colleagues,

As will be apparent in this edition of the Newsletter, FAR-B has been very active this spring in pursuing various programs and activities in support of BARC. Among these is the continuing effort to help organize the BARC Alliance which is an exciting initiative aimed at building a broad base of support for BARC among the business, government and non-governmental sectors.

Details are presented in an accompanying article in this Newsletter. However, I do want to take this opportunity to express on behalf of FAR-B our sincere gratitude to John Peter Thompson, Chairman of the Board, Bhenke Nurseries, Inc., for his



J. P. Thompson, Chairman of the Board, Bhenke Nurseries, Inc.

willingness to take this lead in this effort. FAR-B looks forward to working with John Peter to make this a reality.

This month (June) occasioned the awarding of the first Innovative Research Grants to BARC scientists. The direct providing of funds for research is a relatively new activity for FAR-B, but is one that should be expanded, if possible, given the budget constraints BARC is experiencing. To this end, FAR-B is exploring new ways of raising money for this purpose. We hope this fall we can announce new activities to achieve this.

Finally, I am very pleased that FAR-B's extensive efforts at community outreach, especially those focused on schools, is receiving significant recognition. In this Newsletter is an announcement of one such recognition, the Silver Medal Presidential Award for Volunteerism. My warmest thanks to those who have devoted so much of their time and energy to this program, the award is richly deserved!

Warm regards,

Darwin Murrell, President

Area Director's Message

If the three most important issues in purchasing a house are location-location-location, then the three most important issues at BARC are funding-funding-funding!

A number of budgetary decisions are still winding there way through the halls of Congress. A Supplemental Bill was finally

passed that would rescind the 1 percent FY06 rescission for Katrina relief efforts within the Agency. Certainly this is good news but these funds at BARC will be used to offset elevated utility costs for FY06. We are still awaiting the mark-up from the Senate but we know from House actions that the funds for the Phytonutrient and Fruit Laboratories were restored as well as past Congressional add-on appropriations.

We at BARC are pleased to have Dr. Allison Yates on-board as the new Beltsville Human Nutrition Research Center Director. Allison comes to BARC with a long and impressive background in the human nutrition arena.

Our new poultry facility is nearing completion and we plan on having a dedication sometime in August. We hope that this will be just the beginning of the re-modernization.

Since I have been out-of-BARC for a three month detail as Acting Area Director for the Southern Plains Area (SPA), I would like to share some impressions. First, yes, BARC is different than other areas within the Agency. The SPA has 20 locations plus some additional worksites spread over four states and Panama; thus, a suitcase and a travel card are necessities. Certainly, many tasks can be handled by phone or e-mail but nothing replaces "face-time" with staff at locations which obviously takes time and a hefty Area Office travel budget.

Many of the financial issues we are addressing here at BARC are challenges at many of the SPA locations; reduced SY staff but maintaining the same size physical plant, increase utility costs, and an eroding of discretionary dollars. It is certainly more difficult to adjust staffing levels at a location with 10 SYs compare with BARC where reorganizations appear to be the norm.

Ron Korcak, Assistant Area Director

FAR-B Initiates New Grants and Awards Programs

FAR-B has initiated two new programs in order to provide assistance to BARC in overcoming Federal budget reductions that are anticipated for the next two fiscal years.

One is a Professional Travel Grant totaling $20,000, proportionately allocated to the three BARC institutes according to their number of SYs. These funds are to be used specifically for scientist travel to cooperating laboratories and professional meetings and will be administered by the Institute Directors as follows: $7,000 to the Animal and Natural Resources Institute; $4,000 to the Human Nutrition Institute; and $9,000 to the Plant Sciences Institute (including the Floral and Nursery Plants group). Requests for Professional Travel Grants should, therefore, be made directly to the appropriate Institute Director.

FAR-B just established a second program, the Awards Program for Scientists and Innovative Ideas. Awards of up to $5,000 will be made by FAR-B to individual scientists as resources permit. Criteria to be addressed when applying for an award include: (1) approval of the applicant's first line supervisor; (2) a description of the project or innovative idea and an estimate of cost; (3) expected outcome; and (4) other sources of support. One-page applications should be sent via e-mail to the FAR-B President, Dr. K. D. Murrell, at kdmurrell@comcast.net.

The FAR-B Board of Directors approved funding for three proposals at its June meeting. The first award was granted to Dr. Lisa Rowland of the Fruit Laboratory for "The Identification of Markers Associated with Parthenocarpy in Blueberry." This work should result in the identification of one or more DNA markers for parthenocarpy (production of fruit without pollination). Markers will be available for future marker-assisted-

selection in breeding for parthenocarpic cultivars with good fruit quality.

The second award was made for a cooperative proposal from Dr. Lyndel Meinhardt of the Sustainable Perennial Crops Laboratory and Dr. Robert Owens of the Molecular Plant Pathology Laboratory for "The Development of a Viroid Induced Dwarfing Methodology for *Theobroma cacao*." A dwarfing agent of this nature could be used on any superior producing clone to reduce the overall height of trees so as to facilitate cultural practices that control fungal diseases by the timely removal of diseased tissues.

Dr. Susan Lawrence of the Insect Biocontrol Laboratory received the third award for "An Environmentally Friendly Approach to Corn Rootworm Control in Maize." Experiments will be conducted to identify genes that are induced by corn rootworm infestation in roots and leaves and would allow production of inducible insect resistant plants. Such plants would result in lower levels of insect toxin protein in the environment and would supersede the use of chemical pesticides for controlling this major insect pest.

After its summer recess, the FAR-B Board will reevaluate the Grants and Awards Programs to determine how best to proceed with these new initiatives during the coming year. As always, input from FAR-B members is welcome by contacting our President or any of the Board Members.

Ralph Bram, Grants & Awards Chairman

FAR-B Annual Meeting

FAR-B's annual meeting was held at the Henry A. Wallace Beltsville Agricultural Research Center, Building 003, auditorium on Tuesday, May 2, 2006 at 2 p.m.

Preceded by a 1:30 p.m. reception for FAR-B board members, patrons, and sustaining and associate members with food and drinks provided by Nancy Thrush, FAR-B Vice-President William Wergin called the Annual Meeting to order and made introductions. He introduced featured speaker, John Peter Thompson, CEO, Behnke Nurseries, Inc., Beltsville, who spoke on "The New BARC Alliance and the Rise of Invasive Ornamentals."

Thompson's presentation was very lively, extremely interesting and informative and well received by the audience. He pointed out that gardeners are obsessed with order and symmetry so as to mimic man's perceived vision of the Garden of Eden and the folly of such an endeavor. He illustrated in a slide show the result of using invasive species like ivy, bamboo and wisteria--that look great but need constant tending to be tamed--in home landscaping and gardens. Then he spoke briefly about his mission to bring attention and financial assistance to BARC from business, government and non-governmental sectors—by making them aware of BARC's vital and incredible contribution both to the Washington D. C. area and the nation.

After Thompson's presentation, Phyllis E. Johnson made brief comments about what is happening at BARC. She spoke briefly of an inventory of native plants on BARC property that found rare and old and endangered species of plants and trees. Her talk was most fascinating and informative.

Next, Wergin presented a brief review of FAR-B's many accomplishments during the past year. Then Morton Beroza presided over election of new officers and board members.

Freddi Hammerschlag was elected to the FAR-B board and James Anderson was officially elected Secretary.

Hank Becker, Publicity Chairman

Financial Report

FAR-B's budget for 2006 will once again show expenditures exceeding income by a considerable margin. This deficit will result of the Board of Directors' decision to dip into reserve funds to provide $20,000 to BARC scientists for travel grants and up to $15,000 to fund an Awards Program for Scientists and Innovative Ideas as discussed earlier in this newsletter.

On the income side of the 2006 budget, we anticipate that the 29 percent reduction in pledges to the Combined Federal Campaign last fall will be offset by increased yield in interest on FAR-B's investments.

Vernon Pursel, Treasurer

BARC Poster Day

Once again FAR-B assisted in making the annual Poster Day event a resounding success by providing a tent adjacent to the ARS Visitors Center so that the high school interns could display their posters alongside of the BARC post-docs and newer researchers.

This year 29 Eleanor Roosevelt High School seniors displayed their posters that described their research efforts in BARC laboratories.

Jenny Allen, Intern Coordinator for BARC, assisted FAR-B in providing eight judges who evaluated the posters and FAR-B then provided $300, $200, and $100 cash awards to the three interns with the highest overall scores.

The first place award went to Jason Kunz for his project "The Effect of New Strains of *Bacillus thureigiensis* (BT) on the Diamondback Moth, *Plutella xylostella*. Antioxidant." Second place award went to Elizabeth Mongeon for her project "Combinatoral Microbiology: A Simplified Approach to Isolating Insecticidal Bacteria." Third place award went to Jasmine Bennings for her project "The Effect of Viroid Infection on Tomato Growth and Development."

Vernon Pursel, Treasurer

FAR-B Lead Science-Enrichment Program Merits Silver Presidential Volunteer Service Award

For the third straight year, BARC scientists have teamed with FAR-B, the Beltsville Elementary School, the University of Maryland, and others to bring science enrichment to the Beltsville school. Skillfully planned by FAR-B's ARS liaison Diane Odland of the ARS Information Staff, each lab's station entertained and exposed students to basic concepts that are sorely missing from the science-starved elementary school curriculum.

Kindergarteners Nkechi Ofulue, Ashley Hosein, Victoria Diaz, Brittney Maharaj, and Anisa Roberts check out a cool cow on Science Enrichment Day

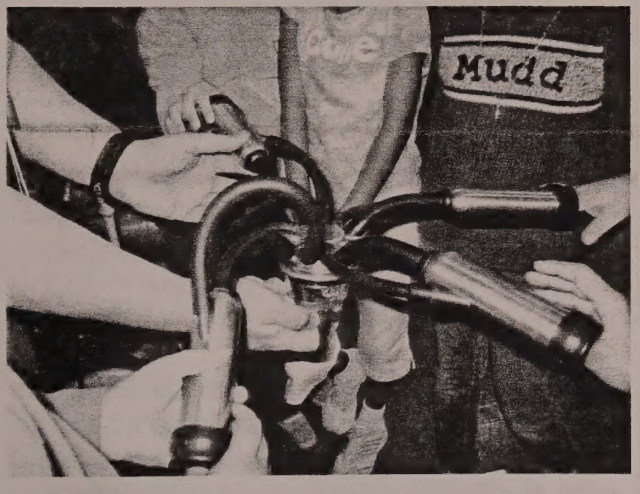
A year ago, the enrichment theme on human nutrition won a bronze medal Presidential Volunteer Service Award. This year's theme won again. This time the group received a silver medal Presidential Volunteer Service Award for its efforts. Organizers are already

dreaming of "going for the gold" next future year.

From May 2 to 4, four BARC laboratories and FAR-B volunteers returned to the Beltsville Elementary School for an intensive, hands-on science enrichment event for its students. This year, about 14 BARC scientists and a supporting cast of FAR-B and other volunteers demonstrated to students the wonders of Animal Science.

Each of four BARC labs set up a demonstration station in the school gymnasium. The group heading to Pat Allen's station received a scientific explanation of how parasitic organisms attack chickens. They used a laboratory microscope for a close-up view of the parasite. Students--many perhaps for the first time ever--then got their hands on the feathers of a real live chick.

At Duane Norman's station, students experienced the vacuum tug and pull of a real milking machine. And they received a lesson in basic animal genetics. They explained why some cows grow up to have horns, and some do not? Why some cows are black and white, while others are red and white?



Students experience the vacuum tug and pull of a real milking machine

At the honeybee station, Bart Smith and associates helped students look for the queen inside a sealed beehive. Then students received a science lesson about how honeybees pollinate many fruit and vegetable plants and their critical role in pollination. Each year honeybees pollinate about $14 billion worth of crops.

Entomologist Dave Adamski had creepy-crawly live caterpillars to handle, and majestic pinned Monarch Butterflies to admire. Many insects are migratory travelers, Adamski explained, while twirling a world globe. Students discovered that Monarch Butterflies in winter, go deep into Mexico and look for a tree laden with Monarchs.

A poster contest is under way for students to display what they learned from the science enrichment event. Teachers will select 35 winning posters, and they will go on display at Citizens National Bank in the Chestnut Hills Shopping Center, Beltsville, about June 1. The bank invites the public to stop by and have a look.

Jim Butcher, Outreach Chairman

National Visitor Center Gets New Director

Jennifer Woodward-Greene first became associated with ARS BARC in 1986. She has a Master of Science in Animal Science: Environmental Dairy Nutrition, and graduated *cum laude* with her B. A. in Animal Science, both from the University of Maryland. She conducted her graduate research at the BARC. Her research on nutrient cycling focused on N conservation in the rumen, and her large animal, 6 X 6 LS digestion trial was the first ever digestion trial conducted in the new BARC Dairy facility.

While in grad school at Maryland, she worked part-time as a High School Molecular Biology Teacher and as a lab technician at ARS. As an undergraduate, she worked 30 hours a week at ARS Beltsville in the Roads and Ground Unit as a landscape laborer and tractor operator,

with research animals as an animal caretaker, and as a technician in the Ruminant Nutrition Lab before becoming a full time employee.

Jennifer volunteered for several agricultural and leadership development organizations. She is active as a 4H mentor, and in collegiate student organizations. In 1993, she submitted an employee suggestion to the ARS Beltsville Area Director for "Partners in Education," a joint program with BARC, The University of Maryland, and the student Agriculture professional honorary organization, Alpha Zeta. The Alpha Zeta Agriculture Field Day at BARC program served as a template for discussions on what eventually became the BARC Public Field Day.

Besides the Field Day, the full blown Partners in Education Program generated numerous educational programs for youth, adult groups including Extension and commodity groups, university student groups and classes, even an international tour from a top level delegation from Moldova, arranged by Alpha Zeta's national office.

After nearly 16 years at ARS, in 2000 she went to private industry as Manager of Education and Scientific Affairs for the Horizon Organic Farm and Education Center, part of the Marketing Department of Horizon Organic Foods, an international, public food company. She managed operations, budget, program, and up to 20 employees. Jennifer found her niche and love in this position, as it utilized and developed her strengths in science, education, program development and analysis, and marketing.

Just before her return to ARS, Jennifer worked for the USDA Cooperative State Research Education and Extension Service in Washington D.C., where she served as a Program Specialist in CSREES' Competitive Research Grants Programs Unit. Back at ARS, Jennifer has continued working on a national level in the ARS Recruitment Office marketing ARS as an employer of choice, and working with hundreds of clients improving their resumes and Federal job applications. She worked with ARS National Program Staff for Animal Production and Protection, putting on two National Stakeholder Workshops just before assuming her current position as the new director of the ARS National Visitor Center.

17th Annual BARC Poster Day Award Winners

The 17th Annual BARC Poster Day was held on April 26 at the ARS National Visitor Center. BARC Poster Day is an opportunity to publicly recognize our newest research scientists, visiting scientists, and post-doctoral research associates, and it provides an excellent opportunity for these scientists to present their research results to the scientific community and others interested in advances in agricultural research.

Award-winning posters were presented by David P. Puthoff of the Molecular Plant Pathology Lab; Martha C. Anderson of the Hydrology and Remote Sensing Lab; Meghan A. Kelly of the Nutrient Requirements and Functions Lab, and Chun-Chieh Yang of the Instrumentation and Sensing Lab. Students from Eleanor Roosevelt High School who conducted research projects under the mentorship of BARC scientists also participated.

In the student division, award winning posters were presented by Jason Kunz, Elizabeth Mongeon, and Jasmine Bennings.

Friends of Agricultural Research-Beltsville (FAR-B) provided financial support so the students could present their work along with the BARC scientists. More information can be found at www.ars.usda.gov/ba/posterday.

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Jennifer Woodward-Greene

In Memoriam

Heggie Holtan

Heggie Holtan died on March 22. He was a man of many parts: a gymnast and athlete; a man of science who performed pioneering research in hydrology; an all-round handyman (carpenter, electrician, plumber) who added to or re-built nearly every home he ever owned; a man of faith who helped found Holy Trinity Lutheran Church of Laurel, Maryland; a faithful husband, devoted father of 3 children; and grandfather of 7 grandchildren.

Heggie was born April 10, 1909, on a tobacco farm in Stoughton, Wisconsin. He was the youngest of 13 children of a hard-working Norwegian family. He loved sports, especially gymnastics, and so he trained to be a physical education teacher at LaCrosse College. He graduated in 1933, just in time for the Great Depression.

He joined the Civilian Conservation Corps, where he got work helping agricultural field research teams and found he had a talent for engineering. These teams traveled all over the U.S., taking measurements and setting up experiments at various field sites. It was on one of those field trips into Georgia that he met his wife Glenna Humphries, who he married on January 5, 1938.

The newlyweds traveled all over the U.S. But Heggie realized that he needed formal training to further his career, so he and Glenna traveled to the frozen wastes of Ames, Iowa, where he entered the engineering program at the University of Iowa. He studied, and she worked to put food on the table. He even cooked on occasion.

Heggie soon resumed his career, and in Alton, Illinois, their eldest son Andy was born in 1943. Three years later, twins Greg and Susan were born. In 1947,

Heggie was transferred to the Agriculture Station at VPI in Blacksburg, Virginia.

In 1953, Heggie was transferred to the USDA Plant Industry Station in Beltsville, Maryland, where he was instrumental in establishing the Hydrograph Lab--a national database for the collection and correlation of rainfall and soils data from all over the U.S. This lab was the first to employ computer modeling of rainfall infiltration and run-off for various soils and terrains, using empirical data input to equations he developed.

He directed this lab until his retirement in 1974, after 42 years of government service. During his career, he published many scientific papers, and was asked to speak at conferences worldwide.

After retirement, he and Glenna moved to Vero Beach, Florida, to be near his son Greg.

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